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# Consumers' Research BULLETIN

Consumers' Research, Washington, N.J.

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Sources of Lead in Cocoa

Clinical Thermometers

Consumers Get a New "Protector"

by

Charles S. Wyand

The "Better Light-Better Sight" Campaign

*The Power Trust Discovers Optometry*

Ways and Means of Getting Fresh Coffee

*How Consumers Can Outwit the Coffee  
Advertisers*

# Consumers' Research BULLETIN

Issued by

Consumers' Research, Inc., Washington, N. J.

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C—not recommended on basis of quality.

CR—information from Consumers' Research's own tests or investigations.

1, 2, 3—relative prices, 1 being low, 3, high.

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## Off the Editor's Chest

"WE ARE ALL CONSUMERS BY NATURE," says Professor Horace M. Kallen. "We are all of us consumers," says T. Swann Harding. The viewpoint expressed by these two men is widespread. The President's adviser on consumer questions, Professor Walton H. Hamilton, declares that the consumer's interest "is to be protected and encouraged in matters only obliquely related to it. It is an inseparable part of the whole of the going life of the community, but it is not a part which can be isolated and attended separately." Less frequently, the same significant conclusions on what should be done about the consumer's interest are reached by stating the opposite—that there are *no* consumers. Thus a distinguished former governor of New Jersey writes: "I do not know of any consumer in this country, excepting the people in jails and almshouses, poorhouses and the unemployed, whom we want to make producers. You are not a consumer. I am not a consumer."

But the facts of our society give the lie to the views of these economic philosophers. Whenever food, drug, and cosmetic legislation is proposed, it is perfectly clear that the consumer's interest "can be isolated and attended separately." The Proprietary Association and the Advertising Federation of America want one kind of legislation on such matters, and consumers want an entirely different kind. The consumer's interest is not merely "isolated"; it is thrown into bold relief against the wishes of the patent-medicine men and the ad-writers. It is often to be distinguished, indeed, as that which patent-medicine men and ad-men oppose with every force of argument and propaganda.

Not even the wearing of the label of "consumer" makes all of us consumers, as is made perfectly apparent by the economic behavior of Cooperative Distributors described elsewhere in this number. *Consumer is as consumer does*. Whoever has a stake as a seller of goods which leads him into sharp practices against the buyers of goods, is not a consumer.

There are many whose chief interest in goods is to *sell* them at a price which represents all that the traffic will bear in excessive mark-up, in diminished value through adulteration, or through false claims of character or value through overstatements in advertising. Such persons profit continually at the expense of consumers. There are others whose chief interest in goods is to *use* them with a view to maintaining healthful, harmonious, and efficient standards of culture. When they sell goods or services themselves, they do so without fraud or misrepresentation of any kind. Whatever their relationship to goods and services, whether as seller or buyer, they proceed on the assumption that goods should serve the user. These and these alone are consumers.

J. B. M.

## Ways and Means of Getting Fresh Coffee

### How Consumers Can Outwit the Coffee Advertisers

CR'S INFORMATION ON COFFEE has heretofore included little advice as to the best ways of obtaining coffee in fresh condition, or on the effectiveness of means available to the average consumer for keeping it that way. Unbiased information is scarce, as, until Consumers' Research undertook its special investigation in this field, all the known experts on the subject had connections with packers or advertisers of coffee or manufacturers of tin cans, and for the most part they have been enthusiastic to a quite unscientific extent about the advantages of a process which lends itself especially well to the packaging of coffee in air-tight, sealed tin cans—at a nice addition to the retail price.

Many people do not have a correct idea of how coffee deteriorates. Immediately after roasting, the aromatic flavor, which is extracted in brewing and which is the characteristic of coffee for which the consumer in the main buys it, starts to decrease in strength. After about two weeks of keeping ground coffee in a bag, can, or jar (even if sealed), it is necessary to use twice as much coffee to obtain the same flavor-strength of the brew, as was required immediately after roasting. This not only costs more, but, as the amount of caffeine in the coffee does not decrease with age, twice as much caffeine gets into the brew, so that coffee which has declined in freshness is not only less desirable from the flavor point of view, but it becomes, as it grows older, increasingly undesirable from the standpoint of healthfulness, with the effect of intensifying nervousness and sleeplessness in those who are susceptible to coffee. Besides, such coffee, on account of the greater proportion of extractives which get into the brew, has a more bitter flavor, and after the eleventh or twelfth day after roasting, a rancid taste, due to staleness, becomes noticeable. This stale flavor increases rapidly thereafter and soon makes the beverage unpalatable.

Thus freshness in coffee means more than mere absence of staleness, and contrariwise, staleness is more than just lack of freshness; staleness is lack of freshness plus an added unpleasant flavor. Loss of freshness begins long before the stale flavor comes into the picture, and the loss of freshness means chiefly a loss of strength, and hence of economy in use. As the coffee loses freshness, there is an additional loss of *quality* of flavor, because of the extra bitterness occasioned by the necessity of steeping a larger and larger quantity of coffee to get a brew of the same flavor-strength.

Coffee packers have taken advantage of the general lack of realization of these facts to misrepresent the effectiveness of vacuum packing. Even the American Medical Association has taken part in the wool-pulling campaign. Its magazine, *Hygeia*, says, "The investigations carried on by this bureau [Bureau of Coffee Information] show that freshly roasted coffee immediately 'sealed in vacuum' in

tins does not become stale in the unopened package." So far, true. "Thus it is possible to obtain *fresh* coffee from the grocer at any time." [Italics ours—CR] This, of course, is a significant misstatement—one worthy, indeed, of the popular women's magazines. Coffee packers and advertisers, when they talk of fresh coffee, always mean coffee that is *not stale*, and in which the stale flavor already explained has not yet developed. They carefully ignore any suggestion of the fact that the freshness or strength and hence the economy of use of coffee declines markedly before staleness appears. The loss to the consumer resulting from lack of freshness is their financial gain—providing, as it does, a well-concealed way of making the cost of coffee (per cup and per unit of flavor-strength) much higher than it needs to be.

A great deal of coffee has lost the larger part of its strength by the time it is used; much of it, indeed, had already lost it or even become stale and worthless, or nearly so, before it was purchased by the consumer. When it is considered that in a survey by the coffee trade itself 66 out of 93 samples purchased all over the country in 1933 were found to be stale, it is clear that many people do not know when they are drinking stale coffee. Entirely aside from considerations of flavor, the amount of money spent unnecessarily because of coffee deterioration (and wasteful brewing as well) must run into a staggering figure per annum, and into very sizable amounts for each individual family. Only part of this loss is due directly to loss of freshness; probably an equal amount is thrown away on gaudy and impossible advertising claims, on elaborate tin cans, fancy bags and boxes, and cellophane coverings—all of which have no more effect in preserving the coffee than an ordinary unsealed paper bag. These containers, of course, are used only for sales-effect, to make the buyer think—or rather feel—that the coffee *ought* to be better if packed that way.

Even if sincere, most of these attempts at warding off deterioration of roasted coffee are totally misguided. The simple fact about coffee containers that are supposed to be sealed (other than vacuum pack) is that if they *were* sealed, and if the coffee were in fact fresh when packed, they would eventually burst, or at least be bulged quite out of shape. If they *are* sealed and do not bulge or burst, it is because the coffee had lost most of its strength before it was sealed in. The blowing up of the can would be the inevitable result of the evolution of gas by the coffee—six to twelve pounds pressure in the can. It is this evolution of gas that is the main reason for vacuum packing (remember, the advertiser never tells the real reasons or all the reasons for the new process or marketing practice which he exploits). If the container is *not* sealed, it has no value whatever over an ordinary paper bag, or, indeed, over keeping the coffee in an open pan, since the protective gas soon escapes, carry-

ing with it the valuable aroma. The consumer pays for the fancy container just the same and, as usual with fancy containers, gets nothing for the extra money except some refuse to be hauled away at the next visit of the scavenger.

From tests of coffee recently carried out for CR, it appears that loss of strength is most rapid in the first two or three days after roasting. After that time, nothing can be done for ground coffee to slow up further deterioration, which proceeds at very nearly the same rate whether the coffee is kept in a sealed jar or in an open pan. This applies to vacuum-packed coffee after opening also, and hence there is nothing one can do with the higher-priced vacuum-packed coffee to assure its retaining flavor after it has once been opened and put to use.

Ground coffee kept in open pans was found to lose strength three times as fast as bean coffee in sealed jars, in the first few days after roasting. Except in a vacuum-pack container, coffee ground immediately after roasting that has waited around for a week before the consumer gets it, will have lost 25 percent of its strength. By the time it is used up a week later (and many families will take longer than that to use up the coffee in a single container), only 45 percent of the strength remains. By this time also a rank, stale taste will have begun to appear. Thus, the average yield is only 60 percent and the user is paying almost 50 percent more for his coffee per cup than if he started using it the same day it was roasted (in which case the average yield, during the week in which the coffee bought fresh from the roaster was being consumed, would be better than 85 percent).

There is little to be gained by the consumer's using preserving means (such as a sealed jar) for a supply of coffee, whether in the bean or ground, that is to be used up commencing immediately after purchase, even if it is obtained freshly roasted. (This is because the opening of the jar each time coffee is used largely nullifies the saving which is obtainable if the jar remains sealed for several days, after filling with freshly roasted coffee.) The best that can be done is to see that the coffee is ground *when purchased*, and not before. For anyone who is in a position to do so, it is best to buy and have ground no more coffee than enough to last three or four days. This procedure will give an average yield of almost 90 percent of the ideal if the coffee is not more than a day old when ground. If only four days old, however, and a week's supply is bought, the average yield falls to less than 70 percent—over a 30 percent increase in cost per cup. These differences in the actual cost show that the *condition* of coffee can influence the cost of the beverage to the consumer far more than differences in price per pound of the roasted bean. The important point in regard to getting maximum yield from each purchase of coffee, and hence best economy in use, is that the coffee must be purchased, and as much of it as possible used up, before much of the rapid deterioration of the first few days has taken place. During this time the coffee is at its best.

The larger part of the loss of strength of roasted

coffee occurs while it is being kept in the pantry awaiting use, the loss being larger the longer the time, of course. Preserving means are worthwhile mainly in cases where the coffee must be stored a week or more before use, when it is obtained immediately after roasting. To get anywhere near all of the available saving, the coffee must be purchased before the rapid deterioration of the first few days after roasting has taken place, because it is during this time that any means of preserving the flavor and strength will be most effectual. Unfortunately, the only way of getting any appreciable saving in the use of roasted coffee involves grinding the beans at home just before use. *Bean* coffee placed in a well-filled sealed jar immediately after roasting will have over 85 percent of its strength when opened a week later, as contrasted with less than 75 percent for *ready-ground* coffee also obtained immediately after roasting, but kept in a paper bag.

When coffee must be kept for more than ten days after roasting, there is no choice (excepting vacuum pack), if the rancid taste of staleness is to be avoided, but to keep the coffee in the bean, unground. In this way, staling is delayed nearly two weeks longer than in ground coffee, and a 10 to 15 percent better yield is obtained. This increased time before the appearance of staleness is the most pronounced difference between bean and ground coffee; the quicker staling of ground coffee is due to the exposure to air of the inner particles of the bean. Ground coffee should not be kept more than ten days, even when obtained freshly roasted. Staleness appears when 60 percent of the coffee strength remains, whence the loss due to throwing out ground coffee because of the appearance of the unpleasant stale flavor is considerable.

Those who wish to obtain the utmost in economy and flavor quality, at the same time avoiding the effects of caffeine to the maximum extent, can easily roast their own coffee. Tests by CR have shown that roasting can be done satisfactorily in an electric corn-popper with a stirring handle, such as can be bought from Sears, Roebuck for 98 cents, or, with a little more trouble, in an ordinary oven. Roasting in the corn-popper (which has not yet been tested for shock-hazard, durability, etc.) required ten minutes, with constant stirring. This method gave a more uniform roast than the oven, which required nine minutes with frequent stirring, the oven being pre-heated to 500 degrees as indicated by the thermostatic gas regulator. Care is necessary not to over- or under-roast; a little practice will enable one to judge the right degree by the color. The trouble of obtaining green coffee and roasting it is offset to some extent by the lower cost of the green coffee, which may be bought in quantities sufficient to last several months, as it will keep in a dry place for a year or so. Indeed, some grades of green coffee increase in value in the wholesale market with length of storage. Two or more families can join in purchasing green coffee, and in sharing a suitable roaster. For best economy and finest possible flavor for the grade of coffee which is used, roast no more than three or four days' supply at a time, and keep the roasted beans



in a sealed jar. Green coffee of several varieties and blends of varieties may be purchased by mail or express in any good-sized city; e.g., from the Old Dutch Mills, Inc., 80 Front Street, New York City, and Thomson & Taylor Co., 536 W. 22nd Street, Chicago. (Coffee grinders may usually be secured from house furnishing stores that sell old-fashioned or traditional kitchen appliances and equipment. The French or German makes of the type held in the lap of the user are still sold in this country and are more satisfactory than American ones, and give a fine grind which is necessary for economy. Such grinders may be secured from Hammacher, Schlemmer & Co., 145 East 57th Street, or Charles R. Ruegger, Inc., 666 Sixth Avenue, both in New York City. Prices range from \$1.35 to \$1.85 and up.)

In addition to the economy achieved by this method, weight must also be given to the superior flavor and to the less harmful effect of the beverage, on account of its lower caffeine content, as already explained. People who really appreciate good coffee and can discriminate good from poor coffee, will not be satisfied with anything less than the most effective means of getting the maximum of goodness from the beans.

Unfortunately, the importance of the differences in yield as determined by the condition of the coffee, which has been discussed in this article, is completely overshadowed in many cases by the fact that the housewife utilizes only a fraction of the available yield because of improper brewing. As the result of incomplete extraction (and consequent waste) of the flavor, the gradual weakening of ground coffee probably goes unnoticed, because any weakening of the brew is readily compensated for by an increase in the extraction, as by longer brewing (percolating or boiling) time. Then, too, the average housewife's coffee is far from being a uniform product. Strength and flavor may, and with most people do, vary widely, the latter especially as to its bitterness or mellowness. Some of this variation is beyond the housewife's control; changes in blends, and possibly improper roasting are a common occurrence and make for waste of the consumer's money. Diligence in securing fresh coffee and close attention to proper brewing, as outlined in CR's *Handbook of Buying*, will minimize both the loss of economy and the variation from uniformity. Any method of brewing which requires that the coffee be coarsely ground necessarily gives less efficient extraction than any method with which finely ground coffee can be used. Coffee ground to a fine powder will give as much as 10 percent greater yield than the "universal" grinds of vacuum-packed and other ready-ground coffee. Ready-ground coffee is nearly always much coarser than it should be; it is, of course, to the advantage of coffee roasters and packers to employ a fairly coarse grind. While the coarser grinds waste coffee and increase the housewife's costs in this way, she can, for the most part, be depended upon not to be aware of this fact, and hence will accept what the packers tell her is the proper fineness of grinding.

It is interesting to note that from earliest times,

coffee was favored mainly because of the stimulating effect of the caffeine, and only secondarily because of its pleasing flavor. Nowadays, however, presumably on account of the number of other cases of stimulation and mild poisoning in the diet and in beverages, many, if not most, people wish to avoid the often marked and disadvantageous effects of caffeine. Fresh coffee, in which there is the most favorable proportion of coffee flavor to caffeine content, is, therefore, all the more important. Unquestionably, many people suffer undesirable effects from coffee-drinking because the coffee has deteriorated and, in order to get satisfactory strength of brew, so much must be used that the caffeine content of the beverage is greatly increased.

### Choosing a Brand

Unlike canned tomatoes or peaches, coffee cannot be rated by brand advantageously. Desirability, assuming comparable freshness, is in most cases a matter of individual preference for the flavor of the variety, or more commonly, the blend of varieties, as represented by the various brands (many of which, of course, are of identical or nearly identical variety or blend). Variations in actual quality of flavor, among well-selected blends, are too small, and rating of flavor is too indefinite to make a rating of brands worthwhile at present. The cheaper brands of coffee, however, are usually of a single unblended variety, one or more grades of *Santos* being the most common. An unblended coffee is generally considered inferior in flavor to a well-selected blend, in not having the mellowness of flavor. This is not to say that there is any detectable relation between price and quality of flavor; the only certainty here is that the more expensive blends are greatly overpriced in relation to the difference of their production costs over the cheaper single varieties. Exclusiveness in coffee, as in other things, comes high. As a matter of fact, the additional wholesale cost of the superior brands is so little more that practically all coffees could be sold at retail at the prices customary for the poorest ones.

### Dated Coffee

The sole aim of all special distributing systems for coffee—besides providing selling points, of course—is the avoidance of staleness, and the consequent damage to the reputation of a brand should it be too regularly sold in a too-noticeably stale condition. This concern over staleness is all beside the point from the consumer's angle, because there is no reason, except the packer's convenience, why coffee should have to stand around long enough to become stale. It is very much to the point with the packer because it allows his distributors and retailers the profitable advantage of being enabled to take their time in handling coffee and to keep it in their stockrooms and on their shelves as long as suits their convenience. No great objection could be raised to this if it resulted in a lower cost to the consumer, but all evidence points to the conclusion that it does not, because the packer is not in the

least concerned with the loss of freshness and loss of value to the consumer that occurs while his stock of coffee is standing around and long before staleness of flavor begins to develop; nor does he, of course, adjust the selling price of his coffee to its decline in value to the consumer as it loses strength. In this connection it is worth noting that packers have carefully avoided showing the date on which the coffee was actually roasted, the only procedure that would have significant value to the consumer and that would represent strictly honest and frank dealing with him in the matter of coffee packaging and distribution.

Even if the dating of coffee with the date of delivery to the retailer could be trusted as truthful (and there is considerable evidence that it cannot be), it does not and cannot give the consumer any absolute assurance that he is not getting stale coffee, nor, of course, can it assure him that he is getting coffee with anywhere near all of its fresh strength. "Rushed to your grocer, straight from the roasters, every can *dated the day the grocer receives it*," say Chase & Sanborn. The statement italicized (by CR) lets the packer out. Conceivably, a coffee packer and a fire engine driver may have different ideas as to the interpretation of the word "rush." No one but the packer knows how long the coffee has been roasted when it is delivered to the grocer. Very likely longer than the important first few days in which deterioration is most rapid. Even if the roasted coffee required only two days on its way to the grocer, it would be decidedly stale before the end of the ten-day limit, when it was *supposed*, according to Chase and Sanborn's advertising, to be withdrawn from sale.

As to the probability of a much longer time than two days being required, as our distribution system actually runs, it is interesting to compare this trade with the wholesale bakery trade where there is a much more positive urge for quickening the distribution process, on account of the more clearly apparent effects of staling of the product that any housewife can judge for herself. A wholesale baker's factory cake sold via the grocery store is normally *four days old* before it reaches a customer. It is safe to assume, of course, that the speed of distribution of large-scale commercially-roasted coffee is very much less than that of factory cake.

### The "Low-Down" on Vacuum-Pack

Tests of vacuum-packed coffee carried out for CR have revealed that the loss of freshness in the first week after roasting and vacuum-packing is little, if any, less rapid than in bean coffee sealed in air. Vacuum-packed coffee shows the same rapid loss of freshness and strength in the first few days, no doubt because the gas escapes from the coffee even more easily than normally when the restraint of atmospheric pressure is lacking.

The vacuum pack's advantage in preservation of the ground coffee does not amount to much until well into the second week, after which the average loss of freshness in ready-ground vacuum-packed coffee takes place at about one-third the rate which applies to bean coffee sealed in tight containers in air on the same date. The lower rate of loss with time

in vacuum-packed coffee is due to gradual building up of gas pressure in the can. The practical significance of these comments is seen when it is noted that tests of vacuum-packed coffee, in spite of the advertising claims of freshness fully maintained, have shown it to have as low as 65 percent of its original freshness. In the face of the expensive advertising to the contrary, or at least giving a contrary implication, it is altogether probable that most vacuum-packed coffee as bought is in fact no fresher than ordinary bulk or packaged coffee a week old. This is due to the very rapid decline in freshness of the vacuum-packed coffee in the first few days after roasting and packing. Moreover, *because* of the misleading advertising and the grocers' and consumers' assumption that vacuum-packed coffee keeps undeteriorated practically forever (whence the grocer will buy too large supplies, and make no effort to turn over his stock rapidly), the freshness of the highly-advertised vacuum-packed coffee may be so low that the consumer gets an average yield and freshness of only 50 percent or less. This means, since the price of the vacuum-packed coffee is higher, that per cup of beverage the cost to the consumer will be more than twice that which he need pay. Vacuum-packing gives the consumer no essential protection at all against deterioration or loss of freshness. He is simply paying a sizable extra sum *for an assurance that the coffee has not reached that stage of deterioration where it has developed a stale flavor*.

The defect of the customary reasoning with respect to vacuum-packed coffee is the failure to allow for the fact that the aroma (and hence the strength) is carried out of the coffee by the gas, which builds up to considerable pressure, and can absorb a great deal of the aroma. When the can is opened, the gas, which it contains, saturated with the coffee aroma, passes out into the air of the room. One may perhaps be pardoned for wondering what difference it makes (except to the packers) whether the coffee loses its strength during a week or so standing in a slip-cover can on the grocer's shelf, or in one puff when a vacuum-pack can is opened and when the kitchen for a moment is filled with the fragrance of fresh-ground coffee.

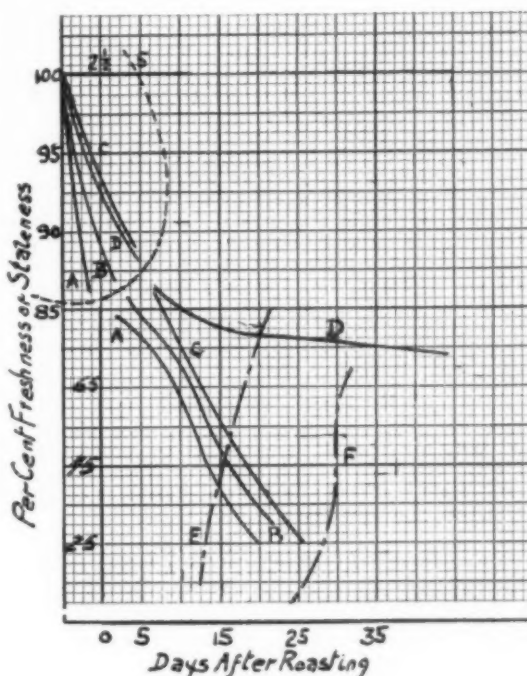
A paper bag manufacturer recently tried to make much of a statement by a coffee researcher that vacuum-packed coffee "probably" lost strength more rapidly after opening than fresh coffee after roasting. So far as CR's tests showed, there was no detectable difference. In fact, the vacuum-packed coffee did not show *staleness* until several days later than ground coffee roasted at approximately the time of opening the vacuum-pack, and exposed since that time in the open air; but the vacuum-pack had also reached a much lower level of strength than the unsealed coffee, when staleness first appeared. To make this concrete, ground bulk coffee became noticeably stale eleven days after roasting, when its strength had declined to 60 percent and vacuum-packed (that was 70 percent fresh when opened) was down to 25 percent strength fifteen days after opening, when staleness first became noticeable. If the vacuum-packed coffee showed 90 percent freshness when opened, staleness did not appear until

twenty days, when the coffee was down to 25 percent of its original strength (representing loss of freshness at the usual rate for ground coffee). This lengthening of the time before staling for ground coffee in vacuum tins, as compared to exposed ground coffee, is due presumably to the absence of oxygen in the can during the sealed-up interval. Because coffee *can* be kept for these lengths of time without staling of flavor, however, is no reason why it should be; the effective cost of the coffee—i. e., its cost per cup of beverage of a given strength of flavor—to the ultimate consumer is increased greatly by the accompanying large deterioration loss, and by the unnecessary expense of the costly packaging method; besides, as has already been made plain, with loss of freshness the amount of caffeine in the beverage as actually made may reach a level harmful to many persons.

As long as fresh coffee can be obtained by other and less expensive means than vacuum-packing, the consumer should not pay the distributors of vacuum-packed coffee for enabling grocers to keep on their shelves as long as they please coffee which passes for fresh. Even in the exceptional case that a particular lot of vacuum-packed coffee is nearly 100 percent fresh when bought, the consumer is merely paying an extra price for this. He might just as well purchase the much cheaper exposed or loose non-vacuum-packed coffee with its depreciated flavor. That is, the consumer must pay either for the can, and an extra price due to the brand and advertising or for the loss of flavor strength due to deterioration; unless he is willing to purchase fresh coffee frequently, he might just as well take his loss from the packers and roasters in the coffee trade instead of the can manufacturer and the vacuum-pack canner. There is no reason except the coffee trade's profits why fresh roasted coffee could not be delivered as easily and cheaply as fresh bread or fresh milk. The consumer's ignorance of what a true and fresh coffee flavor should be, of course, contributes to the possibilities of making him pay extra sums through vacuum-packing for freshness he does not in fact receive. The best practice for consumers is to demand freshly roasted coffee and to enforce this demand by purchasing from dealers whose sources of supply are known and watched.

In large cities it is possible to purchase coffee from small shops where it is roasted more or less continually and in the customer's presence. Such shops have much less motivation for stocking large quantities of roasted coffee to grow stale on the premises. The purchase of vacuum-packed coffee, at any rate, is uneconomical and undesirable from the consumer's point of view, except under certain limited conditions that have been indicated in the foregoing and which are briefly set down in the *B. Intermediate recommendation* below, because it provides just one other means (discussed at some length in *Eat, Drink, and Be Wary*, available to CR subscribers at \$1 a copy, and briefly in *The Consumer and The Farmer—Both Get Gyped*, free on request) for forcing the consumer to pay the manufacturers and distributors amounts which rightly belong to him, or if not to him, to the

producer of the raw material and the worker on farms and in factories.



The downward slope of lines A, B, C, and D represents the loss of freshness or flavor-strength of coffee after roasting.

Line A is for ground coffee in an open pan.

Line B is for bean coffee in an open pan, and (very approximately) for ground coffee in a sealed jar.

Line C is for bean coffee in a sealed jar.

Line D is for vacuum-packed coffee.

The upward slope of curves E and F represents the increase of staleness or rancid taste. Line E is for ground coffee in an open pan, or (very approximately) for ground coffee in a sealed jar. Line F is for bean coffee in a sealed jar, or (very approximately) for bean coffee in an open pan.

Enclosed part within the elliptical curve is enlarged to show the very rapid decline of freshness in the first few days after roasting.

#### A. Recommended

Freshly roasted coffee (not over a day old) of a variety or blend that suits the taste, in paper bags, from a grocer who knows, and can be trusted to be truthful about the time since roasting, or, better yet, from a coffee specialty store that roasts frequently, on the premises. The lowest priced brand may be just as satisfactory, depending upon the consumer's personal taste, as a higher priced one. If coffee is bought ready-ground, no more than a three- or four-days' supply should be bought at a time.

1 Green coffee roasted and ground at home as used. This is the only certain way of getting the utmost in economy, flavor, and freedom from caffeine effects. Persons whose families and coffee consumption are large will find it a great economy as well as a practice making for very great improvement in the quality of the beverage to roast their own coffee from green coffee of selected variety or blend to suit their own taste or pocketbook.

1



### B. Intermediate

Vacuum-packed coffee of a brand suited to the taste. The extra cost is justified only if there are no means available to the consumer by which he can be certain of getting other and cheaper coffee that is not stale; or if the conditions are such that coffee must unavoidably be kept for more than 10 days before use, and then only if it is not convenient to keep and grind bean coffee at home (which procedure is considerably more economical). Leaky vacuum-packed cans are fairly common, and of course the coffee in them is very likely to be completely stale or at least deteriorated much worse than that which has been stored in a tight can for several months. One way to be sure of getting cans that have not leaked is to pick those which have a slight bulge on the end, indicating that the gas given off subsequent to sealing has not escaped. <sup>3</sup>

The customary "dated" coffee in cans or bags. The dating, from the consumer's standpoint, is of no value as a criterion of freshness. <sup>3</sup>

### C. Not Recommended

Coffee of unknown age is an undesirable purchase at best. In any but vacuum-pack containers, it is almost never economical, and more often than not will give a beverage of unduly high caffeine content, and very poor quality.

## More Easter Egg Dyes

CR POINTED OUT in the *Bulletin* for March, 1935, the danger of lead poisoning and in the 1935 *Annual Handbook of Buying* the risk of lead and arsenic poisoning in using Easter egg dyes made from colors of a grade lower than the specially pure dyes certified for food purposes by the Food and Drug Administration.

A subscriber has since written us as follows: "When reading your article on dyeing of Easter eggs, I thought a method used by my mother for years because of fear of poisonous dyes might be of assistance in a future recommendation. If some skins from red onions—or yellow ones—are put in the water while boiling, the eggs will come out a deep mahogany color. The color of the onions and amount of skins used will cause some variation in color. Only the dry outer husks are needed." CR has found that these directions work well.

### A. Recommended

Boiling eggs with the outer skins of red or yellow onions.

### B. Intermediate

The following egg dyes, which are of the type permitted by the F. & D. Admin. and which are believed to be comparatively safe for use on the shells of eggs, were by inadvertence omitted from the ratings given in the 1935 *Annual Handbook*. In the *Handbook* were listed as C. Not Recommended two Paas dyes (manufacturer has stated to CR that production of these two dyes has been discontinued) containing in one case lead and in the other case both lead and arsenic, which are not to be confused with the following dyes rated B. Intermediate.

*Paas Easter Egg Transfer-O-S* (Paas Dye Co., Newark, N. J.) sg 35

*Paas New Process Easter Egg Colors* (Paas Dye Co.) sg 35

*Peter Rabbit* (Paas Dye Co.) sg 35

## Sources of Lead in Cocoa— The Trade Explains

AS CR SUBSCRIBERS OF LONG STANDING know, we have for some time pointed out the dangers from lead found in common articles of food including cocoa and chocolate, and candy and beverages made from these products. Some of the probable sources of this contamination which CR's consultant chemists found in the products by refined methods of chemical analysis, appear in the report of proceedings at a candy manufacturers' conference during the past summer.

MR. MELODY: Dr. Jordan, you speak of leads. We have the introduction of lead into candy in our plant in only one place and that is the foil that covers the coconut. That coconut is very carefully inspected and one man opens coconut only, with a nail puller, removing all splinters and then carefully removing the lead foil.

As far as I know there isn't any way of detecting lead or lead foil or metal of that type.

DR. JORDAN: One reason I asked the question was because there must be quite a bit of solder used in plants at one point or another. It shouldn't be but there must be some joints that are soldered. Solder is half tin and half lead. There must be some babbitt packing, there must be some other metals.

The superintendents of agriculture are beginning to go crazy now on the presence of lead, and if they are coming for plant inspection, the first thing they are going to do is to look for soldered joints. They are going to look for lead pipes, for some of the metal packing such as babbitt, because the continual wear against that will throw a minutely small amount of metal into a product and two parts per million is the top limit on lead.

There are a number of organizations that today are trying to tear down good will and acceptance of candy, claiming that some of them have excessive lead.

I only ask that question so that each of you could go back and look over your equipment and try to eliminate as much as possible all presence of solder or contact of solder or things of that sort with food, particularly with those which are acid in character.

MR. MELODY: Can anyone add more to that? Is there any other question, or is anyone here with experience from which we may learn something?

MR. H. G. ZIEGLER: Some of the cocoa bean bags have a lead seal on them. That lead seal should be removed from the bag before you let it go through the cleaner, because in some instances this little metal seal has gone through the cleaner and gotten into the cocoa beans.

I understand from the Government inspector that one of these little seals will contaminate three thousand pounds of cocoa bean liquor. In our plant every bag is inspected and that little lead seal is removed. This inspector was at our plant within the past three months and he called our attention to it.

MR. MELODY: Is two parts in a million poisonous?

DR. JORDAN: No, that is the tolerance allowed; that is as high as they will allow you to go.

MR. MELODY: Two ounces in a million ounces?

DR. JORDAN: Two pounds in a million pounds.

DR. JORDAN: It goes away out to the sixth decimal point before you begin to find it, but the experts claim that lead is a cumulative poison and the Government has just started in the last two or three months to emphasize this difficulty.

Mr. Ziegler called my attention last night to this inspection, and I have heard it from some Southern cities, and they are starting in New York.

MR. ZIEGLER: There is one other way in which you are likely to get lead; that is the chocolate pan for molding. A lot of solder is used in the chocolate mold and when you have defective molds and there is scraping of the pans, some of the solder is scraped into the chocolate. . . . (The *Manufacturing Confectioner*, July, 1935)



## The "Better Light—Better Sight" Campaign

### *The Power Trust Discovers Optometry*

THE NATIONAL ELECTRIC LIGHT ASSOCIATION, trade association of the electric light and power industry, appears to have been unable to withstand the public disgrace resulting from the Federal Trade Commission's investigation of its activities in spreading propaganda through the newspapers, schools and clubs of America. At any rate, it extinguished itself in February, 1933, and was immediately reincarnated as the Edison Electric Institute with the same membership and the same officers. The first convention of the new organization was held in Chicago in June, 1933, while the Century of Progress Exposition was in full swing. Between edifying visits to the Hall of Science and less edifying excursions to the Streets of Paris the busy utility executives found time to consider the really pressing problems which were confronting their industry. Since the palmy days of the Coolidge prosperity, electric power production had declined precipitously. The large industrial customer, who uses most of the power, and the small domestic consumer, who supplies most of the revenue, had both become obsessed with what the *Electrical World* called "the thrift complex for saving on light." Said Mr. George E. Whitwell, Chairman of the Sales Committee, "To sum up the residence situation, . . . appliances have not sold recently as we would have wished and compulsory economy has put many an appliance on the shelf and reduced the wattage of many a light bulb. . . . Light has been used with too great economy, our income has reflected this condition and we are not happy about it."

The Edison Electric Institute officially recognized the problem and set out to attack it. It was plainly a matter of educating the public to use more light, and the utility men are past masters at the art of pedagogy. Besides the more subtle "educational" activities for which the Federal Trade Commission had so roundly censured them, they had conducted a number of campaigns to school the public in the more generous use of electricity. In the Better Home Lighting Contest they had taught the parents through the children in the schools to use more light in the home. In the Industrial Lighting Campaigns they had sold the idea of more light in the factories. Through the impressively named agencies, the National Food Preservation Council and the Electric Refrigeration Bureau, they had made the public refrigeration conscious. The Electric Cookery Council was a spirited if rather unsuccessful attempt to try to get the American housewife to cook by electricity in spite of the high rates. The results were disappointing and the utilities retired gracefully, leaving the electric cookery field to their publicly owned rivals in Ontario and the Tennessee Valley where low rates make electric cooking an economic possibility. Plainly, in 1933, with the electricity-consuming public possessed of a "thrift complex for saving on light," further education was

needed. The Better Light—Better Sight Campaign was conceived to provide the education.

It started in a small way as an experiment in Utica, New York. Mr. M. E. Skinner of the Niagara Hudson Power Corporation reported on the result of the experiment at the Chicago convention. The sales method used, which turned out to be so successful, soon came to be known as the New Approach (capitalized for some reason) to home lighting sales and consisted in taking "cognizance of the fact that every housewife is working toward the betterment of her family's health" and in convincing her, by means of the "New Science of Seeing," of which we shall hear more later, that her home was inadequately lighted to the point of imperilling the safety of her family's eyesight. The selling problem was greatly simplified by the use of the sight-meter, a simple little device recently developed by a commercial laboratory which indicates instantly, by the deflection of a needle on a meter, the intensity of the light falling upon it. A sight-meter, in the hands of an illuminating engineer, is an exceedingly useful device, but in the hands of a skilled salesman and before a defenseless housewife who doesn't know a foot candle from a kilowatt hour it is just another impressive sales-gadget. However, it did bring in the money; the New Approach soon proved its merits in Utica from the point of view of the lighting sales executives. A check-back on the homes which the saleswoman had visited showed that 80 percent had increased their connected wattage, the average increase per home being 220 watts. When Mr. Skinner reported this result at the convention, the utility executives, after a brief mental calculation to convert 220 additional connected watts per customer into probable annual revenue per meter, endorsed the New Approach with enthusiasm and returned home to prepare for the celebration of National Lighting Month in October.

### *The New Approach*

Since the success of the Utica experiment and the birth of the Better Light—Better Sight Campaign, the New Approach to home lighting sales has become the gospel for a growing army of saleswomen (Home Lighting Specialist is the official title). This is no cheap doorbell-punching sales effort. These graduates of the four-day course in the New Approach which the General Electric Company has been giving all over the country have learned in that course how to make the contacts that bring them into your home as a friendly adviser on lighting problems rather than as an ordinary house to house canvasser. They are schooled in methods of developing and following up "leads". In obtaining these leads they are, of course, assured the active cooperation of their employer, the local lighting company. "The Detroit Edison Company

asked each employee to bring in three leads outside the company and asked that the necessary introductions for appointment be actually set up." Having gained entrance to your home the Lighting Specialist is in no hurry to leave. Her quota of calls is not large, "three original calls a day with two call-backs." She is allowed plenty of time but she is expected to get results, 220 active watts of connected load in each home is her quota. If she makes her quota she will bring in \$4600 a year in increased annual revenue. The cost to the company is estimated at \$3 per call which for 720 calls per year amounts to \$2160. Is it any wonder that the Better Light—Better Sight Campaign is judged by the sales executives of the electric light industry to be the greatest sales success in years?

### ***The Better Light—Better Sight Bureau***

The light-selling activities of the electric utilities had not progressed very far before it became evident that an advantage was to be gained by seeking the cooperation of other business groups. It seems at first a rather far cry from the selling of light to the selling of spectacles and on to the selling of paint. A moment's consideration, however, will show that the groups engaged in these various enterprises really have a community of interest. If you can persuade a housewife that the insufficient lighting of her home is endangering the eyesight of her family, it should be only a short step further to persuade her to take the children to the optometrist's for an eye examination. And if you can persuade her that her rooms are dim from inadequate light, the drabness of her walls is an obvious contributing factor and a fresh coat of paint is in order. It was just this community of interest which led to the formation, in August, 1934, when the Better Light—Better Sight Campaign was just over a year old, of the National Better Light—Better Sight Bureau. This promotional octopus, according to the *Electrical World*, "backed by eleven national trade associations, and linking a total of 21 groups interested in eyesight conservation and lighting sales . . . constitutes a voluntary, non profit [sic] enterprise, underwritten as to necessary finances by the Edison Electric Institute, the General Electric and Westinghouse Electric and Manufacturing Companies." Among its diverse membership are included the Edison Electric Institute, the Better Vision Institute (National Association of the Optical Industry), the National Paint, Varnish, and Lacquer Association, the National Electrical Manufacturers Association, and the National Bureau of Casualty and Surety Underwriters. The endorsement of the Illuminating Engineering Society gives the stamp of scientific respectability to the whole project.

With the weight of this array of business interests behind it, the Better Light—Better Sight Campaign rapidly gained momentum. By the end of the year 1934, the manager of the Better Light—Better Sight Bureau was able to report that "More than 5000 persons on utility staffs are now devoting their full time to selling better 'seeing' in homes, stores and factories" and that "In the combined

electrical, paint and optical industries it is estimated that over 250,000 persons are active or indirectly doing their bit in promoting eyesight conservation and Better Light for Better Sight."

### ***The Optometrists Lend a Hand***

The utility promoters have made a determined attempt to get the medical profession to throw its prestige behind the campaign to sell more light to the public, but have met with little success. The ophthalmologists, who are medical men specializing in eye diseases, know well that it requires much more than adequate lighting to save a failing eye. They are also accustomed to go to impartial scientific sources for their scientific information and are therefore able to detect the commercial bias in the New Science of Seeing. Also, being members of the medical profession, they adhere to a code of ethics which does not permit them to use their professional influence for the business advantage of the vendors of more and still more light.

The optometrists, on the other hand, are apparently not handicapped by such limitations on association with business enterprise; their attitude has been one of open and hearty cooperation with the utility salesmen. Throughout the country meetings of the state optometric societies have been held jointly with groups commercially interested in the sale of electricity, lamps, and paint. At a joint meeting of the Illinois State Optometric Society and the Chicago Section of the Illuminating Engineering Society, Dr. H. E. Pine, president of the former body, made an address on the prescribing of illumination by optometrists. A portion of this address, as reported in the Better Light—Better Sight News, is quoted here [*italics mine—author*]:

"The optometrist," said Dr. Pine, "is the logical contact man between the lighting interests and the public and I feel that if full use is made of the possibilities, the optometrist can be of tremendous value, not only to his patients *but to the lighting interests as well*. I would earnestly suggest that the electric companies furnish to responsible optometrists, who have provided themselves with either the light meter or the sight meter, postal cards on which the optometrist would not have to affix postage, and after the optometrist has, during his examination determined the occupation and by actual trial what he believes should be the proper illumination and has made this illumination an actual part of the prescription he is writing, he should tell the patient that 'For your work, Mr. Jones, you should have . . . foot-candles of illumination. Good sight must be brought about by a partnership between your eye doctor and lighting engineer. Your glasses, no matter how accurately prescribed and ground, cannot deliver you satisfactory service unless you are using your eyes under proper lighting conditions. *I am going to ask the — Edison Company to send a man to your office and to your home to see that you have the proper amount of illumination. . . .*'

"I would then fill out the post card with the name of the patient, his address and phone number, and

the amount of illumination advised for his particular case, and drop this card in the mail box. *It would assure the representative of the — Edison Company entree and a courteous audience. . .*

"This method would undoubtedly impress the patient with the scientific worth of the optometrist's examination and of his genuine interest in his ocular welfare. It would immediately place the optometrist so serving him in a class in the patient's mind far above the average spectacle seller. He would see the difference between the professional service and the merchandising transaction. *The optometrist would gain, the lighting interests would gain and certainly, most of all, the patient would gain increased eye comfort.*"

It is obvious that the motive of self-interest is not notably less strong in Dr. Pine and his fellow optometrists than it is among the members of the Edison Electric Institute. Furthermore, it is clear that when the amount of illumination is not left up to the lighting salesman entirely, the optometrists, in specifying it, will use the very generous values recommended by the well-remunerated General Electric scientists at Nela Park. What mother, taking little Johnnie to the doctor to have his eyes examined, can resist such sales tactics? As we said before, this campaign is distinctly of the high-pressure type and the subtlety of its attack makes it the more irresistible. All too many consumers will see nothing amiss in the optometrist's turning them over to the well-oiled advances of the lighting company's salesmen.

In the next issue of the Better Light—Better Sight News we learn that the seeds of Dr. Pine's proposal did not fall on barren ground. The Michigan Optometrists Association and the Consumers Power Company had teamed up. In this case it is clear that the matter of prescribing the amount of light is being left up to the lighting salesman. "The card with his (the patient's) name and address is then mailed to the local lighting engineer of the Company who makes a survey and transmits his recommendations to the optometrist, who in turn passes them on to the patient." [Italics mine—author] Unlike the optometrist who works this system, your doctor sends you to a druggist to get your prescription filled but he does not leave it to the druggist to determine the quantities in the prescription.

### How Much Light Do We Need?

How much light do we need to read by with safety and comfort? Well, according to the prophets of the New Science of Seeing, we need quite a lot. Dr. Matthew Luckiesh, Director of the General Electric Lighting Research Laboratories at Nela Park, and his co-workers have, it appears, been proving over a period of years by a series of experiments in psychology, that we can use to advantage a great deal more light than we are accustomed to use when working under artificial illumination. The fact is that the human eye is effective over an enormous range of intensity. We can read under intensities of as low as one foot candle (the intensity of illumination at a distance of one foot

from a candle) and we can read in full sunlight under an intensity of 10,000 foot candles. Neither of these extremes is to be recommended. Reading will become easier as we increase the light intensity from one to ten foot candles and intensities of over a few hundred foot candles cause a decided feeling of discomfort; nevertheless there is a large range in between these two values where seeing can be accomplished with ease and comfort. In the past, it has been customary to recommend levels of illumination at the lower edge of this range since there is little, if anything, to be gained by going to higher values, in fact there may even be some disadvantage in the higher levels of illumination unless particular care is taken to eliminate glare; besides the matter of economy is clearly important when the great additional cost of the high values in lamps, fixtures, and electrical energy is considered. According to Dr. Luckiesh and his New Science of Seeing, the optimum level actually comes to several hundred foot candles. Evidently realizing that this is rather more than the public can be persuaded to accept, just now, Dr. Luckiesh and the other members of the scientific façade of the Better Light—Better Sight movement have given their official sanction to a value of 25 foot candles as an immediate practical objective for the industry and its customer.

How does this compare with the recommendations of other sources with less commercial bias or interest? The International Commission on Illumination, with technical representatives from the United States and many foreign countries, has set 5 foot candles as a minimum value to be used on the desks of pupils in schools. It specifies 6 to 12 foot candles as a value "which assures human welfare and is justified by economic considerations." Dr. Leonard Troland, a psychologist of Harvard University, has made an extensive and critical survey on the literature of the subject for the Committee on Industrial Lighting of the National Research Council. He concludes that while higher intensities may be necessary "for some very exacting kinds of work," in general, "the vast majority of industrial operations can be carried out at maximum efficiency with an illumination intensity in the neighborhood of 10 foot candles." Dr. Miles A. Tinker, a psychologist of the University of Minnesota, who has investigated the subject experimentally in a university laboratory, after pointing out the fallacious interpretations placed on the psychological experiments of the New Science of Seeing by the General Electric scientists, summarizes the situation as follows:

"There is no valid evidence in the literature to support the suggestions that the normal eye needs from 25 to several hundred foot-candles of artificial illumination for easy and efficient reading of legible print. . . . For all but abnormal eyes and the reading of illegible print, 10 to 15 foot-candles furnish an ample margin of safety in brightness of illumination."

### The New Science of Seeing

For sales purposes the New Science of Seeing consists principally of two experiments in psychol-



ogy. One, which is very plausible in plan, conceals a fundamental fallacy, at an earlier date exposed by the great Dr. Luckiesh as "a well-known vagary of human nature." The experiment used was an experiment in psychology rather than a sound demonstration of any need for illumination levels far higher than those now common.

As to the other experiment used as a demonstration of the need for more light, the change in the measurement of muscular tension that is supposed to warrant a tenfold increase in our monthly tribute to the lighting company, is small and of doubtful rather than direct and certain significance.

### *We Are Shooting at the Sun*

"We are through shooting holes in darkness and are shooting at the sun," say the mimeographed notes of the General Electric Lighting Sales Institute Course. Do not think for a moment that after you have flooded your home with 25 foot candles of eyesight-saving illumination you are to be allowed to rest. We quote from a paper of Luckiesh and Moss on "The Applied Science of Seeing." "From the new viewpoint the sky is literally the limit, for already data are available for the first time which indicate that outdoor intensities of illumination are ultimately desirable and necessary for optimum conditions of seeing." Mr. Ward Harrison, Director of the Nela Park Engineering Department of the General Electric Company, gives a clear indication of the goal. "Our eyes were developed by Nature to function well under outdoor daylight. . . . The present objective in lighting . . . is to provide illumination for all workers more nearly comparable to the conditions for which their eyes were evolved." Were there no cloudy days, no fog, no twilight, in primitive man's period of evolution? A little farther on, Mr. Harrison says, "In years to come when indoor lighting is what it really should be, and our streets and highways are also adequately illuminated, the capacity of all the power plants in America will have to be increased at least 50 to 100 percent to carry the load." And the General Electric Company will make most of the equipment for these power plants and the increased distributive systems required. Why shouldn't Mr. Harrison and his employers get enthusiastic over the subject of eyesight conservation? Mr. Bruce Barton, who can often be counted upon to burst into song over an idea which promises the opportunity to help out the good old advertising business, delivers himself of a eulogy on the humanitarian motives of the promoters of Better Light for Better Sight and winds up with a clear indication of where he is going. "Not until we have the equivalent of sunlight inside the home, the store, the office and plant, at any hour and under any conditions, will the work of the lighting industry be done. At our present rate of progress that goal is still some centuries away." We shudder to think of the coal and ashes and oil that will have to be hauled to generate power when that wasteful day comes. But if succeeding years are as profitable as 1934, they will be centuries of progress for Mr. Barton and his confrères in the advertising world. At the end of the year the Better Light—Better

Sight Bureau was able to report the passing of the following advertising milestones: 5,000,000 column inches of newspaper advertising, 175 pages of trade paper advertising, one or more pages of advertising in 20 leading magazines, programs over 40 radio stations, and the distribution of 10,000,000 pieces of direct mail. Mr. Barton's advertising firm of Batten, Barton, Durstine and Osborn is known to have had a prominent part in this program. Can it be that the powerful motive of self-interest which we have traced through the humanitarian efforts of the utility, paint and electrical manufacturing industries and the optometry profession to increase brightness levels of illumination is present also in the advertising business?

### *What Can We Do?*

What can we do against this highly organized campaign which works by methods as subtle as persuading our spectacle fitters to sell us our lamps? In the long run, it is doubtful if much can be done while we work within the confines of an economy where our prescriptions are, as it were, to be written by a druggist who is trying to clear his shelves. We can, however, cultivate an attitude of profound skepticism toward the claims so glibly made by those who are grinding their own commercial axes with an impressive scientific grindstone. And in the matter of the amount of light we use, we as consumers will, if we are wise, match each advance in the New Science of Seeing with another in the Old Art of Sales Resistance.

FORMAN SMITH

### *The Smallest Is Medium*



THE CANNED OLIVES in this picture run from Medium at the left, which is a small olive, to Jumbo, which is a medium sized olive, to Super Colossal at the right, which is a large olive. As a former Bureau of Standards official put it: "Whether or not [these] designations are any more intelligible to the consumer [than fancy, extra fancy, and choice] is a bit questionable, but at any rate the psychology is good, as there is not a *small* size, the classification starting with *medium*." Good psychology, to a Department of Agriculture or Commerce official, is that which takes consumers' money under slightly or considerably misleading representations.







# CONSUMERS' RESEARCH, Inc.

*Organized and incorporated under the laws of the State of New York as a membership corporation to provide unbiased information and counsel on goods bought by the ultimate consumer; not a business enterprise, not operated for profit.*

**Washington, New Jersey**

- Are Welch's claims for grape juice as a fat reducer truthful?
- What brand of canned pineapple labeled "Fancy" was found to be both poor in quality and high in price?
- What is a good and inexpensive brand of toilet soap?
- Which two out of ten models of washing machines have been found worthy to be recommended for purchase?
- What items should a home medicine chest contain?
- Should the consumer eat oranges that have been dyed or ripened with ethylene gas?
- What laxatives are safe, or least harmful?
- Which double-edge safety razor blade was the most effective of 26 brands tested?
- What common foods contain lead or arsenic, or both, in dangerous amounts?

## Consumers' Research Was Organized to Give You the Answers to These and Hundreds of Similar Questions

Information which provides the answers to these questions appears in the *Annual Handbook of Buying* (confidential), issue of September, 1935, which is available only to subscribers to the combined service. The *Handbook* lists commodities by brand name as *Recommended*, *Intermediate*, and *Not Recommended* on the basis of data from tests under immediate supervision of Consumers' Research, and from impartial technical experts; not from manufacturers, salesmen, or advertising agencies. This information made available by Consumers' Research is not obtainable by the individual consumer from government bureaus or any other source.

## Consumers' Research Tests and Compares Many of the Things You Buy

CONSUMERS' RESEARCH is organized, supported, and managed entirely by consumers and devoted to their service. It receives and accepts no money or compensation of any kind from manufacturers, dealers, advertising agencies, or other commercial enterprises. Its purpose is to investigate, test, and report accurately and reliably concerning the hundreds of common commodities purchased by every family. It is designed especially for those who cannot afford to spend unwisely either one dollar or one thousand dollars in a blind selection from dozens of competing articles, each asserted to be best. It is intended to fill the gap resulting from the failure of government to protect the consumer adequately against the advertising and selling of completely worthless and even dangerous commodities. With full allowance for the efforts of the Federal Trade Commission and the Food and Drug Administration, the government affords practically no protection against fraudulent and misleading advertising and selling. *Consumers' Research is the only organization of national scope which takes the risks of controversy with business interests involved in discussing inferior products in terms which anyone can understand and apply in the selection and purchase of goods in the retail market.*

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## History of Consumers' Research

In 1927 Stuart Chase and F. J. Schlink published a "study in the waste of the consumer's dollar" called *Your Money's Worth*. This book, a 1927 Book-of-the-Month Club selection, described the predicament in which competitive advertising and sales pressure place the consumer who attempts to find his way to an intelligent purchase through an uncharted jungle of conflicting claims, skilfully presented misinformation, flattery, sex-appeal, and exaggerations. After devoting a half year of weekends, holidays, and spare time to answering the questions of readers of the book who wanted advice to guide them in their purchases, one of the authors decided that a local consumers' club which he had previously organized should be expanded to meet the problems of such correspondence and to obtain more data on goods. During its first year the enlarged Consumers' Club acquired a membership of 565 persons. The demand for a source of reliable information, entirely free from commercial interest or bias, grew rapidly during the early days of the club. In December, 1929, the Consumers' Club became Consumers' Research, Inc., designed to do on a larger scale the work formerly undertaken by the experimental volunteer organization. In December, 1935, the subscribers to the combined service of Consumers' Research numbered 58,000.

Consumers' Research has a staff of about 50 persons. The organization collects, compiles, and interprets information for its consumer-subscribers. The staff is aided by over 200 technical and scientific consultants and advisers, selected with the greatest care for their competence, disinterestedness, and independence of commercial bias; many of these consultants furnish most valuable services free of cost.

## What Combined Subscription Includes

Each subscriber to CR's Combined Subscription receives monthly bulletins including the September *Bulletin*, *Annual Handbook* edition, for a year from the month in which his subscription is entered, ex-

cept during July and August when on account of work on the Handbook edition, no bulletins are issued.

Both confidential and non-confidential bulletins include reports on tests of commodities, and articles on subjects of general interest to the consumer, such as "Why Not a Legal Clinic?" by William S. Weiss (June, 1935, *General Bulletin*, 25c) and "Ways and Means of Getting Fresh Coffee" (January, 1936, *General Bulletin*, 25c).

The September *Bulletin*, *Annual Handbook of Buying* edition, summarizes previous findings of commodities and services. It lists several thousand products by brand name as *Recommended*, *Intermediate*, or *Not Recommended*. These listings are carefully compiled by a skilled and expert staff under the direction of F. J. Schlink, engineer and physicist, who is Technical Director of the service. Information on which listings are based comes from authoritative and impartial opinions of governmental and private experts, carefully selected for their competence and integrity, and from the testing and research work of CR's staff and over 200 scientific and technical consultants.

Subscription is open to any individual consumer who in good faith signs the confidential agreement and remits the \$3 charge for one year (Canada and abroad, \$3.50). In addition to the *Annual Handbook of Buying* edition of the bulletin and the current issue, new subscribers are sent the *Introduction to Consumers' Research* which presents the nature and scope and history of the service in detail and lists previously issued material.

## Whom Is Consumers' Research Trying to Serve?

Consumers' Research wishes to serve all persons who honestly desire expert professional advice on the goods and services which they buy for their own personal use or that of their immediate families, and economists, teachers, and students of the social sciences, who wish to keep abreast of the new knowledge of consumption-economics.

Please Use This Application Blank

## Consumers' Research, Inc., Washington, New Jersey

☐ I enclose \$3 (Canada and foreign \$3.50) for the COMBINED SUBSCRIPTION.

☐ I enclose \$1 (Canada and foreign \$1.50) for the *General Bulletin* only.\*

I request that I be furnished during the time for which I continue my subscription, with the *Annual Handbooks*, the *Confidential Bulletins*, the *General Bulletins*, and with such other information or publication as Consumers' Research, Inc., may supply regularly to all subscribers. I agree to keep in confidence this information and any additional CR material that I may order or request, except where the material is otherwise designated. I agree to regard all such confidential information as the exclusive property of CR.

Signature \_\_\_\_\_ (Please write plainly in longhand)

Permanent Address \_\_\_\_\_  
Street City State

My profession or business is \_\_\_\_\_  
Each subscriber must state the organization with which he is connected and his position therein.

\* Confidential pledge is not required of subscribers to *General Bulletin* only.

GB36



## The General Bulletin

The *General Bulletin* constitutes four of the monthly issues of the combined subscription. It was originally published in September, 1931, because subscribers felt the need of some material from Consumers' Research which was not confidential, so that they might show it to their friends. It was also intended to provide some information of a public nature, on tests of commodities, for public libraries, societies, and other institutions which are not permitted to receive the confidential bulletins. For the most part, however, the *General Bulletin* is devoted to discussions of economic and related questions of fundamental interest to consumers, such as the failure of the Bureau of Standards to release the results of its investigations to consumer-taxpayers, and the inadequate protection afforded by the federal and state Food and Drug Administrations.

Subscription to the four issues of the *General Bulletin* is open to libraries and other organizations and to any individual who does not wish to subscribe to the entire service, at \$1 (Canada and abroad, \$1.50). The volume year runs from October through June.

## Individual Requests for Information

The answering of individual requests for information from subscribers is *not* a part of the service. Such requests may on occasion be answered at special fees listed in the *Introduction to Consumers' Research* (free on request) when information is easily available, and when it is of general interest to consumers and not just to the individual requesting the information.

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The following excerpts taken from the *Annual Handbook of Buying*, September, 1935, are typical of the selection and presentation of material.

### Toilet Soaps

Coconut oil in soap above 25% should be avoided except for salt-water or marine soap, since *at and above this concentration it may be irritating to the skin.* . . .

#### A. Recommended

*Gondola White Floating Soap* (distrib. Woolworth's, mfr. not stated) (cr 35) . . .

#### B. Intermediate

*Octagon Toilet Soap* (Colgate-Palmolive-Peet Co.); *Guest Ivory\** (cr 35) . . .

#### C. Not Recommended

*Walgreen's Hard Water Toilet and Bath Soap.*

## GASOLINE

Consumers are seldom justified in paying the extra price for the regular and premium ethylized fuels; when they are required to buy such gasoline to suit their motors, it is often their own fault for purchasing a car on salesmen's representations instead of upon fundamental factors that determine engineering performance. . . .

#### A. Recommended

*Blue Sunoco Regular (E)* (Sun Oil Co., 1608 Walnut St., Phila.) 14c to 15.5c. Antiknock superior. Above average in ease of starting and acceleration. Tendency to vapor lock somewhat greater than average. (Note B. *Intermediate* rating of sample purchased in Middle West.) . . .

## MECHANICAL REFRIGERATORS

#### A. Recommended

*General Electric LK-1, Chest type* (General Electric Co., Cleveland) 2 cu ft capacity. \$86.50. Maintained its operating economy very well. Operating cost slightly more than  $\frac{1}{2}$  that of the cabinet *Frigidaire* Standard 634. Some shock hazard. Refrigerant, sulphur dioxide. . . .

#### B. Intermediate

*Norge S55* (Norge Corp., Detroit) 5.5 cu ft capacity. \$164.50. Maintained its operating economy only moderately well. Cost of electricity over  $\frac{1}{2}$  more than for *Frigidaire* 634. Efficiency did not increase with use as claimed, but decreased. Excessive shock hazard. Refrigerant, sulphur dioxide. . . .

#### C. Not Recommended

*Montgomery Ward MW650*. 6.3 cu ft capacity. \$139.50. Failed at end of tests even at 90°F room temperature. Cost for electricity when new twice that for *Frigidaire* 634, and three times as much as *Frigidaire* 634 after several months' test. Very serious trouble with refrigerant leaks. . . .

# Eat, Drink, and Be Wary

by F. J. SCHLINK

*Special Edition for CR Subscribers, \$1.00 postpaid*

**T**HIS is the first discussion of the problems of diet and of food adulteration from the standpoint of the man or woman who must eat the food. A brief study of the average man's source of information, which is mainly misinformation, concealed propaganda, and pseudo-science in one form or another for canned foods, milk, white bread, breakfast cereals, etc., is followed by a brief analysis of how business got control of our choice of dietary and how it keeps control through the system of national advertising and mass distribution of package goods, and, above all, how that control works in specific, practical ways to our grave disadvantage in pocket-book and health.

A constructive summing-up is given of what really is known about food science, by experts who aren't hired to have particular views in favor of bran or oranges or viosterol or vitamin D milk. The author shows how and what to eat in order to avoid, as well as one can, adulterated, over-refined, and downright dangerous foods and beverages, in a civilization geared to profit and to the methods of big business and national advertising, where even college teachers and government officers are a part of the Big Business régime. The content of the book is based upon a great mass of solid scientific and technical information, but is written so that any reader can understand all the points discussed. Though the material is mainly from Consumers' Research files, very little of it has appeared hitherto in Consumers' Research bulletins, or in any other book or pamphlet.

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## CONVENIENT ORDER BLANK

**Consumers' Research, Inc.**  
Washington, N. J.

Gentlemen:

Enclosed please find \$1.00 in check or money order for which send me, fully prepaid, one copy of the special CR edition of *Eat, Drink, and Be Wary*, by F. J. Schlink. I am a subscriber to Consumers' Research.

Name ..... Street .....

City ..... State .....







## Consumers Get a New "Protector"

WHEN THE SUPREME COURT handed down its now famous decision in the Schechter case, the National Recovery Administration was doomed. To avoid an undignified retreat, however, its sponsors, the Roosevelt administration, persuaded Congress to approve an extension of life for the "reorganized" NRA. Barring accident, its official existence will now be terminated April 1, 1936. With appearances preserved and faces saved, little effort has been made to heighten the illusion. Most of the agencies involved are compiling their accumulated data, putting their respective houses in order, and otherwise quietly marking time until spring, when what now passes for activity in the NRA is scheduled to end. There is, however, one part of the moribund NRA which still shows signs of life. The present staff of the Consumers' Division refuses to read the handwriting on the wall. Whether they are over-enthusiastic exponents of face-saving, whether they think they have some kind of a future, or whether they are confused as to their real status is not clear. But whatever the reason, they have spent the past two months assuring the consumer that he is to have a new deal. It is important, therefore, that we inspect this outpouring of optimism to discover whether we are any better informed and guarded under the wing of this new consumer agency than we were when its predecessors were yet in existence.

In reorganizing the NRA following the Schechter decision, the President on July 30, 1935, created a new Consumers' Division which was designed to replace the now defunct Cabinet Committee on Price Policy, the Consumers' Division of the National Emergency Council, and the Consumers' Advisory Board of the old NRA. Walton H. Hamilton, a former professor at the Yale Law School, was named director of the new organization. Although his Division presumably will be dissolved in April with the rest of the National Recovery Administration, Dr. Hamilton says that it may then be made a permanent institution if, in the meantime, it has exhibited "sufficient vitality." All of which may in part explain its present scurrying about. For the moment, it is sufficient to note that the consumer now has but two official "defenders" in Washington. The first is the Consumers' Counsel of the AAA with whom we are not here concerned. The second is Dr. Hamilton's consolidated organization which has assumed the major task of officially protecting the consumer's economic and political interests.

In attempting to perform this function, Dr. Hamilton has divided his work into three parts. The largest personnel, the greatest amount of money, and the most emphasis have been devoted to the preparation of a series of studies on the production costs and retail prices of various commodities. Automobiles, tires, gasoline, paper, shoes, ice, and milk have thus far been analyzed. The value of these studies to the consumer is questionable for several reasons. What little factual information they contain, the Division is forced to hold

in strictest confidence. The only findings it has been allowed to release are couched in the most general terms, which is the government's way of protecting the profits of producers whose products are inferior or whose prices are excessive. Thus a recent release based on the research group's gasoline study supplied the insignificant information that up to 44% of crude oil can be turned into gasoline and that there are numerous other products also made from crude oil; that the Ethyl Corporation no longer charges a gallonage royalty; and that "petroleum is no ephemeral fuel." Nothing was said about current prices with relation to quality; nothing was said about the high toxicity and the public and individual health hazard that some authorities consider to exist in the case of ethyl gasoline distributed on the American market. No comparison was made between the products of any of the refineries. In short, in a five-page article, not one bit of information was forthcoming that might have helped the consumer-motorist to be a more efficient buyer of gasoline.

A second study did deal with the relation between the price and quality ratios of canned foods. Findings were neatly published under the caption "Price Doesn't Mean a Thing" but in no case was the brand name given. We were informed that, "it is possible to buy Grade A peas for 10c, while it is just as possible to buy Grade C for 25c." But not a word was printed as to *whose* peas are Grade A at 10c and *what* brand is Grade C at 25c.

These two releases are typical of what is being done under the guise of consumer defense. Without blushing, some of these "research" people keep insisting that their studies are helping consumers to be better buyers. While occasionally they will admit that the *pertinent* findings of their studies never reach the consumer, they counter with the argument that the facts acquired may be used by the government to show the inefficient producer where he can lower costs (and presumably prices). If he refuses to be shown, they claim that the evidence could be used to force him to desist from practices which are essentially, if not legally, fraudulent. The absurdity of such a program became apparent when the Consumers' Counsel of the AAA politely protested the recent one-cent increase in bread prices. Elaborate figures were presented to show that the bakers were taking advantage of an opportunity to swell their own profits. But the bakers had a set of figures too. Facts and figures were exchanged with a diplomacy that would have done credit to the State Department. It finally occurred to our national consumer-defenders that they were becoming more or less ridiculous. For while they recited figures, *the consumer was and had been for weeks paying the increased price for bread.* The simple fact of the matter is that no federal consumer agency has ever had the money, the personnel, and the authority to defend consumers' interests effectively—nor the kind of personnel who would insist upon their right to act forcefully and forthrightly in the consumer's interest. It has been expedient for various "New

Deal" agencies to create an impression of concern for consumers' welfare, but in no case has the resulting machinery ever been adequate for the job; neither has the administration regarded the inadequacy of the machinery as the proper subject for candid and open discussion to the end of bringing about a correction of the situation.

The entire folly of attempting to help the consumer through present political agencies is here apparent. The Consumers' Division has no power to carry out the grandiose threats and promises its representatives have made from time to time. They can do nothing—not even, as is all too plain, issue the few data they have unearthed. The problem is not necessarily one of the quality of available personnel. While the heads of the older consumer agencies have been consistently low-grade, Dr. Hamilton is an exceptionally able man who is doing all that is possible for the Director of a political agency to do. But there is little that he can accomplish so long as the government insists upon burying any information, or frustrating any official activity, that might jeopardize a manufacturer's profit while protecting the retail buyer's interests. The consumer, therefore, should never lose sight of the fact that he has his choice of fighting his own battles or of being officially betrayed by agencies posing as something they never have been and, in the writer's opinion, never can be.

Another aspect of the Division's work will be the supervision of the operation of the 200 experimental County Councils originally set up by the National Emergency Council. Although these local groups have already proved themselves with one or two exceptions incapable of any effective action, a few of them have been resuscitated and are now following a new policy laid down by Miss Marion Hayes who is directing the work of the County Councils from Washington. Miss Hayes' policy involves the following six points quoted verbatim:

1—There can be no panacea for the consumer. Suggestions for bettering his lot must be as varied as the problems of the industries which he patronizes.

2—Our function is neither punitive nor inquisitorial, but advisory.

3—We are not a party to a tripartite fight between labor, capital, and industry.

4—We oppose subsidization of the consumer to the detriment of a fair wage and an opportunity for profit.

5—A wage increase which brings increased consumption is as much the consumer's interest as lower costs; the consumer's interest is simply the public's interest.

6—We are interested in bringing prices into conformity with lowest necessary costs and seeing that inefficiency and arbitrary restriction are not subsidized.

This whole policy has been epitomized by Miss Hayes when she says "we will attempt to cover the entire consumers' front and to inform, not to propagandize." Without further comment her efforts stand condemned. It is granted that she has shown uncommon intelligence, for a public official, in appraising the precise and narrow limitations of her office. She has, moreover, been singularly honest in admitting that she can do nothing but "advise." But neither virtue can compensate for her fundamental error in assuming that "punitive and inquisitorial" activity is unnecessary to the success of the consumer's fight for decent treatment. Public

officials have always found it convenient to confuse the consumer's interest and the public interest. No such affinity exists. Consumers' interests are as unique and significant as those of the American Federation of Labor or of the United States Chamber of Commerce or the National Association of Manufacturers. It is as absurd to say that "a wage increase . . . is as much to the consumers' interests as lower costs," as it is to say that profit reductions represent "subsidization of the consumer." Both forms of equivocation may be diplomatically expedient but they are a flagrant misrepresentation of fact—and of facts absolutely basic to an understanding of the issues confronting consumers and the Consumers' Division, so called.

Anything the consumer ever has gained or ever will gain has been desperately fought for. There is no common interest. If labor or capital wins, the consumer loses. No better evidence of this fact is needed than the spectacle of the utility holding companies' spending millions of dollars in their recent frantic effort to prevent the elimination of units which have been highly profitable to them but exceedingly costly to the consumer. Imagine Howard C. Hopson trusting his interests to a government agency having the authority to do nothing but "advise," and extolling the virtues of cooperation! Labor Unions show little concern for the effect of wage increases on rising retail prices. Never do the United Mine Workers, for example, try to justify their activities by the use of Miss Hayes' argument that an increase in miners' wages is as much to consumers' interests as a low price for coal. They know that the consumer contributes most if not all of any raises in pay they can get, and they preserve a discreet and businesslike silence on the point. No functioning groups, and no groups but the politically-created consumer agencies in the New Deal Administration, even profess to believe (except for propaganda purposes) in a community of economic interests. To assume that economic gains can be snatched out of thin air is worse than bad economics; it is sheer folly.

However, on the basis of this incorrectly formulated and optimistic but misguided policy, Miss Hayes develops her *program*, which also has six points. She states them thus:

1—To inquire into price-determining structures of specific industries with a view to suggesting means of elimination of those "trouble spots" in productive-distribution systems which keep the product out of the consumers' reach.

2—To educate the public to encourage wider use of quality standards and grade labeling.

3—To study the consumers' cooperative movement with a view to making information concerning administration, organizations, and hazards available to American groups interested in cooperative purchasing.

4—To expand Consumers' County Councils on a nationwide basis to gather data and distribute educational information.

5—To seek consumers' recognition in all matters involving production, price, and trade practices.

6—To review current legislation and public policy from the consumers' viewpoint.

In such fashion does Washington lead us to a Consumers' Utopia! Why "suggest" ways of eliminating the trouble spots in the production-distribution system when such trouble spots represent economic advantage to their exponents and can be

eliminated, when and if they can be eliminated at all, only after a bitter and costly struggle? Rugged Individualism has been shown to be uneconomic and "troublesome," but big business, in its own words, "ganged up on Roosevelt" in a recent effort to destroy the few attempts at regulation of business aggrandizement and exploitation of the public interest the President tried to impose. Apparently it takes a lot more than suggestion to convince some of the trouble makers on the *business* side of the fence of the folly of "propaganda" and "punitive measures."

Why educate the public to the wider use of quality standards and grade labeling (point 2) when the Bureau of Standards' data are available only to business men and their trade associations, and never to the ultimate consumer? Why preach standards when the statesman who introduced the much-amended pure food and drug act into the Senate appeared a short time later on a patent medicine radio program? Or how buy by grade when frantic efforts to get grade labeling into the canners' code are beaten hands down by the canners themselves with relatively little effort and with all needed help from newspapers and the popular magazines? Had the governmental consumer agencies done something in this case, besides "advise," the consumer might now be buying canned fruits and vegetables by grade and standard rather than by guess and by blurb.

And finally, why advocate Consumers' Cooperatives when the avowed policy of Miss Hayes' councils opposes "subsidization of the consumer to the detriment of . . . an opportunity for profit"? One cannot buy cooperatively and to the retailers' profit at the same time. Whatever point in her program or policy we care to inspect, we find inconsistency, a deplorable lack of appreciation for the fundamentals of economics and of the bases of conflicts of economic interest, and a complete absence of insight into all the major relationships that characterize economic life in these declining years of the profit system. Miss Hayes' efforts are worse than no efforts at all because they suggest achievements that are all too clearly impossible of attainment by the methods she is using. The present Consumers' Division, like its predecessors, is a sheer waste of the taxpayer's money, and a dangerous diversion of his loyalties and energies.

\* \* \*

Some of CR's subscribers have objected to the use of the *Bulletin* for such articles as this one. Such persons forget that CR is their sole source of accurate and reliable information on quality and price and that its continued existence depends upon its preservation against every encroachment by big business and by government upon its constitutional right of free speech and free criticism. Business grows daily more offensive and daring in its encroachments on the rights of the individual in the market-place. Not for many years, if ever, has any group been so bold and at the same time so calculating and quietly effective in gaining its ends as now. Fascism is no pipe dream but a very real and menacing prospect. If it comes, and quite likely before it comes, CR is doomed to sure suppression

and destruction, and with it, all other agencies honestly and unequivocally serving any aspect of the consumer's protection. This is no time for equanimity or for tolerance of any groups that deliberately or through ignorance create for the consumer a false sense of security.

All human rights have a political origin, and political change can, therefore, destroy every one of such rights. CR devotes part of its space to the political aspects of the consumer problem because it fears the elimination of even the opportunity we now have of measuring the relative values of goods that are made to sell, habitually misrepresented by advertising, and sold for profit.

CHARLES S. WYAND

## Clinical Thermometers

### *Bureau of Standards' Tests Reported*

THE OLD-FASHIONED method of determining whether the patient had a high temperature by placing the bare hand on the forehead is not, of course, to be trusted. Every home should be equipped with an accurate thermometer for the measurement of body temperature, since this temperature is one of the most important indexes of illness and an important guide to determining when a physician should be called. The majority of clinical thermometers sold are accompanied by a certificate of examination. All too often these certificates have been known to be faked, purporting by use of ingenious phraseology, to have been issued by the Bureau of Standards of the Department of Commerce. A genuine Bureau of Standards certificate, however, is clearly and unmistakably what it purports to be, and does not, of course, resort to wording which merely implies or suggests examination or certification by the Bureau. Reputable manufacturers do sometimes issue test certificates of some kind with their thermometers; the less scrupulous manufacturers' certificates can often be detected by the fact that all of the thermometers "certificated" will be shown as having exact accuracy at all points, that is, all their corrections will be recorded as zero. Massachusetts and Connecticut, having learned the lesson of the dangerous inaccuracy and misleading certifying practices used with clinical thermometers, have laws providing state control for the design and accuracy of all such instruments sold in the state. Such thermometers are stamped *MASS. SEAL* or *CONN. SEAL* together with an identifying letter, inserted between the two words.

Rectal thermometers are considered better for children, but considerable care must be exercised in their use to prevent breakage with consequent injury to the patient. The normal temperature of the body is generally accepted as 98.6° F., but this is not a fixed temperature as it will vary, even in the healthiest person, depending upon age, sex, occupation, etc. This normal body temperature is gen-



erally marked on a thermometer by an arrow and the mercury should always be shaken down to at least three or four degrees below this point before using. Clinical thermometers are known as "maximum" thermometers, i.e., they remain at the highest temperature recorded until the mercury is shaken back. Some thermometers may become defective with lapse of time and fail to hold their readings until the mercury column is again shaken down to a position below the normal temperature. Such thermometers, whose readings fall back after the temperature is taken, are technically known as "retreaters." Thus it is advisable to test your thermometer occasionally to ascertain if it has developed this defect. If so it is useless and should be replaced by an accurate instrument.

CR having arranged for the purchase of a number of clinical thermometers from various drug stores and mail order houses, submitted these to the Bureau of Standards for test, in accordance with Commercial Standard CS1-32 which requires an accuracy of within  $0.2^{\circ}$  at  $98^{\circ}$  F. and within  $0.3^{\circ}$  at  $106^{\circ}$  F. The thermometers rated A. Recommended met this standard and may be considered accurate for all practical purposes. Those listed as C. Not Recommended were rejected before the accuracy test because of defective marking. Two thermometers were tested of each brand, except Taylor *Hospiclinic*; of the latter one sample was broken in transit. In the case of *Fever Thermometer* Cat. No. 53A4250, appearing in the C. Not Recommended group, one sample of the brand was found to be satisfactory while the other was rejected. Thermometers are of the mouth type unless otherwise noted; all listings are cr 35.

### A. Recommended

- Hulco Surety* (Hudson Thermometer Co., Inc., N.Y.C.; distributed by Cooperative Distributors, Inc., 30 Irving Place, N.Y.C.) 62c. 1  
*L<sup>c</sup>* (Distributed by Gimbel Bros., 33 St. & Broadway, N.Y.C.) 49c. 1  
*Taylor Bond* (Taylor Instrument Co., Rochester, N.Y.) 59c. 1  
*Taylor*, Cat. No. 8H6200 (Distributed by Sears, Roebuck & Co.) 69c plus postage. 1  
*Kessling* (E. Kessling Thermometer Co., Brooklyn, N.Y., distributed by Liggett's Drug Stores) 79c. 2  
*Taylor Instanta*, Cat. No. 8H2607 (Distributed by Sears, Roebuck & Co.) 89c plus postage. 2  
*Todco* (Eisele & Co., Nashville, Tenn.; distributed by Owl Chain Drug Stores) 89c. 2  
*B-D Manhattan* (Becton, Dickinson & Co., Rutherford, N.J.; distributed by Whelan Drug Stores, Inc.) \$1.50. 3  
*Firstaid* (E. Kessling Thermometer Co.; distributed by Liggett's Drug Stores) \$1.25. 3  
*Meteor* (The Hoffar Co., Inc., 103 East 125 St., N.Y.C.; distributed by Whelan Drug Stores, Inc.) \$1.75. 3  
*Taylor Mass. Seal*, Cat. No. 8H2602 (Distributed by Sears, Roebuck & Co.) \$1.29. 3  
*Taylor Tycos*, Cat. No. 5002 (Taylor Instrument Co.) \$1.69. 3

### C. Not Recommended

- Fever Thermometer*, Cat. No. 53A4256 (Distributed by Montgomery Ward & Co.) 69c plus postage. 1  
*Standard Stubby*, Cat. No. 53A4244 (Distributed by Montgomery Ward & Co.) 89c plus postage. Rectal. 2  
*Taylor Hospiclinic* (Taylor Instrument Co.) 98c. 2  
*Fever Thermometer*, Cat. No. 53A4250 (Distributed by Montgomery Ward & Co.) \$1.39 plus postage. Rectal. 3

## Beware of Endowment Insurance

THIS ARTICLE IS INTENDED for the individual who has not yet purchased life insurance but is contemplating purchase of such protection. The moment word gets about that he or she is seeking insurance, agents will flock about like flies around honey.

Most of the agents will probably want to sell endowment insurance. This type is the one most profitable for the agent. His compensation is a percentage of the annual insurance premium, and the annual insurance premium is highest in connection with endowment insurance. The company for which the agent works will be better pleased if the agent sells an endowment policy because, since the annual premium is higher, the company will accumulate money under the endowment contract at a faster rate, and so the amount of its own funds at risk under the contract will be less. The individual seeking insurance, inveigled by the time-worn slogan, "you don't have to die in order to have the insurance company pay out the money under this contract," will usually be eager to buy this form of insurance.

This slogan would be less persuasive if it were more generally known that there are many combinations of insurance contracts under which the company would be similarly obligated to pay out

the money before the insured died, and the premiums under these contracts might well be, in fact in many instances are, less than the premiums for endowment insurance.

A policy of endowment insurance is less advantageous than a combination of a whole-life policy with an annuity (or, in place of an annuity, any other form of saving, such as participation in a sound and safe building and loan association) for three reasons:

1. The endowment policy is too expensive.
2. The endowment policy is not flexible enough.
3. The endowment policy does not adequately safeguard the savings accumulated thereunder.

With regard to the expense of the endowment policy: the same amount of money if spent partly for the premium on a whole-life policy and the remainder invested in an annuity (or other form of saving) will produce more for the estate of the assured. A concrete example contrasting the situation of an endowment policy with a whole-life policy will serve to make this point clear. Suppose two men, each 25 years old, take out \$10,000 worth of insurance, one, Mr. Jones, taking a whole-life policy and the other, Mr. Robinson, taking a \$10,000 twenty-year endowment policy. The premium on Mr. Jones' insurance will be about \$215 a year,



the premium on Mr. Robinson's about \$493 a year. Mr. Robinson's premium is so much greater because the insurance company must charge enough to enable it to accumulate \$10,000 in twenty years, since under its twenty-year endowment contract, it has obligated itself to pay Mr. Robinson \$10,000 when the policy matures, that is, twenty years hence. The money under Mr. Jones' policy will not be payable until he dies (or until he reaches the age of 96, whichever event shall first occur), and, consequently, the company expects to have a period very much longer than twenty years to accumulate the \$10,000 it must pay his estate when he dies.

During the first twenty years of each policy, that is, until Robinson's endowment matures, both Jones and Robinson have precisely the same insurance protection. The great difference is that Jones is paying \$215 a year while Robinson pays \$493 per year.

If Jones and Robinson both die at the same time in the nineteenth year after taking out the insurance, each of their estates will receive \$10,000. Manifestly, though, the bargain that Jones made is far superior to the bargain that Robinson made. Jones will have paid to the insurance company approximately \$4,000 (\$215 a year in premiums for nineteen years) while Robinson will, over the same nineteen years, have paid the insurance company about \$9,400 at the rate of \$493 a year. The company's mortality tables show that it will be protected if it collects the premium charged Jones, namely, \$215 a year, for the insurance risk which it takes. The excess over \$215 a year which it collects from Robinson, namely, \$278 a year, is collected by it largely for the purpose of accumulating within the short period of twenty years the \$10,000 fund, which, under the terms of its endowment policy, it must pay Robinson at the end of the twenty years. This accumulation of Robinson's money, which will be used to pay \$10,000 to Robinson when his endowment matures, works out well enough for Robinson if he lives to the maturity date of the endowment policy. But consider the situation if Robinson doesn't live until that date. He will have paid to the company more than twice as much as Jones, though his estate will receive from the company no more than Jones' estate does. This defect is inherent in the situation whenever endowment insurance is purchased.

The inflexibility of the endowment policy is particularly apparent in times of depression. Robinson must pay the full \$493 each year or suffer a default under the terms of his endowment policy. While he can borrow the money from the insurance company to pay this premium after the policy has been in force the required minimum number of years, he will, by so doing, diminish the insurance protection which the policy affords, not only by the amounts he may from time to time borrow but also by the accumulated interest on these amounts. Jones, on the other hand, will have to pay only \$215 a year. And, if he is not able to meet even that payment, he can take out of the money he has accumulated in his annuity (or other investment accumulated by the annual payment of \$278, the difference between \$493 and \$215, that he may

make to provide a savings fund) the \$215 he requires without in any way impairing or diminishing his insurance protection (what he is really paying out his money for). And this, too, without obligating himself to pay interest for borrowing his own money, which is virtually what he does when he borrows under his endowment policy.

Moreover, at the maturity of his endowment, after Robinson receives the \$10,000 which his policy calls for, he has no insurance. If his circumstances have changed, and for any reason he desires to continue to carry insurance, he must pass a new physical examination with the attendant risk that he will be found uninsurable, and, if he is able to obtain insurance, the premium will be high because of his advanced age. Jones, on the other hand, does not have to concern himself with the question of his insurability. He can keep in existence his whole-life, low-premium policy as long as he desires to, and also keep up the payment of \$278 a year toward his accumulated savings, either under his annuity or otherwise, if he wishes to, and can afford to do so.

If, at the maturity of the endowment, Robinson continues to be insurable, he has wide conversion privileges whereby he may convert his endowment policy into any one or more of a number of other forms of continuing insurance, but Jones, too, provided he was well enough advised to purchase an annuity contract with a conversion privilege, may at any time while he is still insurable convert his annuity into almost as many forms of continuing insurance.

At the maturity of the endowment, Robinson, of course, becomes entitled to \$10,000. If at the end of a like period Jones needs \$10,000 he can, by surrendering his whole-life policy and drawing out the money from his annuity accumulations, derive approximately the same amount of money as Robinson has derived from the maturity of his endowment. The rates paid by the different companies vary somewhat, so it may be that Jones will have to wait for twenty-one or twenty-two years before the cash surrender value of his life insurance plus his annuity accumulations will aggregate \$10,000. But his position with regard to raising cash from his insurance and annuity is almost as favorable as is that of Robinson arising out of the maturity of his endowment. And it is more favorable in one respect. If Jones does not require all of \$10,000 he can, by withdrawing such amount as he does require from his annuity, keep his full insurance in force and yet have such amount of cash as he requires.

With respect to the point that the endowment policy does not adequately safeguard the savings of the insured which are included in the annual premium paid therefor, insurance premiums involve either the risk element or the savings element, or both. Upon the death of the insured, every policy, the premium on which involves the risk element, is immediately payable, while policies, the premiums on which involve no risk element, but only a savings element, do not call for any payment to the assured's estate. Consequently, if these two elements are not kept separate by the use of sep-

arate policies, the death of the insured causes all policies to be immediately payable, and, where the risk element and the savings element are both contained in one single policy which is for a fixed amount, and since the savings accumulated under the policy are applied toward making up that amount, they are absorbed and are not available to the assured as savings when the policy is paid. If, however, the savings element is segregated by means of a separate policy (such as an annuity) this remains unaffected by the death of the insured, and his estate, consequently, receives both the face amount of the policy containing the risk element and the aggregate accumulated under the policy having to do only with the savings element.

If Jones and Robinson each invested \$493 a year in insurance premiums, Jones purchasing a whole-life policy for \$215 a year and investing \$278 a year in an annuity, while Robinson expended \$493 for a twenty-year endowment, then if both died after nineteen years, Jones' estate would receive \$10,000 payable under his whole-life policy, plus accumulations of approximately \$7,000 under his annuity policy, a total of approximately \$17,000. Robinson's estate, on the other hand, would receive merely \$10,000 because the savings element in his endowment policy would disappear with the payment of the policy through the happening of the risk insured against. The same condition would obtain, though the difference between the two forms of insurance would be less marked, no matter when death occurred during the first twenty years.

This hypothetical case illustrates clearly the advantage of purchasing the policy with the lowest premium, accumulating any remainder which the insured can afford to lay out in an investment policy which, however, should in every instance be wholly separate and apart from the risk policy. By following this plan, the insured's estate will derive the largest possible benefit from the insurance premiums he paid during his life.

The writer is not unaware of the fact that a whole-life policy is an endowment policy at age 96, and that all the objections to an endowment policy which are described in this article apply to a whole-life policy insofar as it is an endowment. But the objections set forth above, while they apply in some measure to a whole-life policy just because it is an endowment at age 96, are far less objectionable and far less harmful than these same objections in connection with the customary shorter term endowment.

The ideal insurance set-up would be a succession of perpetually renewable term policies carrying through to any age to which the insured might live. Such insurance is, however, not obtainable. However, some companies do issue a modified whole-life policy which approaches this ideal of a succession of term insurance policies. This form of modified whole-life policy carries a premium lower than the usual whole-life policy, continuing at the low rate until the insured shall have attained the age of 60, at which time the policy is convertible, without physical examination into a whole-life policy (which, however, carries a much higher premium). For the purpose of comparing such a policy with the usual whole-life policy it should be

noted that the premium in connection therewith for a man aged 25 is \$154 (instead of \$215) continuing until the insured is 60 years old, when the premium jumps to \$660. Unless the insured has accumulated enough money to take care of the greatly increased premium at 60, this form of insurance policy is a trap, because, if he is not able to meet the increased premium, he will have to drop his insurance. It is safe only for the individual who has strength of mind enough to accumulate each year the \$61 (the annual difference between \$154 and \$215) for the whole of the period until he attains age 60. These accumulations, plus the interest thereon, will furnish him with all, or a substantial part of, the money necessary to pay the increased premium after age 60.

There are, of course, a large number of people who already have endowment insurance. These people, if they are well advised and are still able to pass an insurance company health examination, should promptly convert their policies to one of the less expensive forms of insurance, if this can be done without sacrificing any of the advantageous provisions of the old policy. If it is planned to convert a policy, the insured should be certain that the new form of contract will contain all of the advantageous clauses that are in his old contract. Otherwise, he may find that the conversion may have worked harm in some respects.

If the health of the holder of an endowment policy is so impaired that he is not now any longer insurable, and consequently, is not able to convert his endowment policy, there is nothing he can do. He must continue with his endowment insurance until maturity and at that time accept the amount of the matured endowment from the company. This is often a very disadvantageous outcome for the insured because, while he is not again insurable, he may need insurance; but it is an advantageous outcome for the insurance company, because it is thereby enabled to free itself from carrying the risk of insurance on an individual who is not well.

WILLIAM S. WEISS

**Editors' Note:** *There have been increasingly frequent requests from CR subscribers for information to guide them in buying insurance. In reply to these requests we have taken the position that these problems, although admittedly of the utmost importance to many persons, cannot be effectively treated by an organization whose chief concerns and skills are technologic and consumption-economic and do not include investment and finance. We are still of that opinion. The article by Mr. Weiss appears in this Bulletin because it is an excellent example of the kind of information that a competent insurance adviser and critic is capable of providing, and because the conclusions he reaches in this case are of very large financial importance to a large number of "consumers" of insurance protection. We believe Mr. Weiss to be thoroughly honest, and well qualified in this field. For a modest fee, he will render advice on life insurance problems. All correspondence on such matters should be directed to him at 161 West 86 Street, New York City. Mr. Weiss is not an agent or representative of any insurance company.*

## CD---Defender of the Consumer?

SUBSCRIBERS occasionally call to our attention the apparently coincidental but yet almost too fortunate correlation between certain pronouncements and offerings of Cooperative Distributors, Inc.,\* and the appearance of material of a similar nature in CR's issues. CR does not, of course, offer or make available its confidential information for the benefit of or in relation to profit-making concerns or their interests, or for anyone who does not in good faith intend to carry out the confidential pledge in respect to confidential bulletins and handbook material. That commercial use is made, however, appears likely when one observes that CD, in offering a lawn mower in July, selected a make that CR recommended in June with the statement: "Produced smoothest cut of any machine tested. Tests indicated probability of long life." In its listing of this mower, CD stated: "Produced the smoothest cut of any machine in a recent series of tests. Its sturdy construction assures a probable long life." [Italics ours—CR]

Ordinary scientific integrity and even non-profit-making fair dealing would unquestionably have called for a naming of the agency responsible for the "recent series of tests." But CD chooses, for reasons best known to itself, to conceal its sources of technical information. One is also unable to discover, for example, why sodium perborate, which for over a year enjoyed high favor as an ingredient of CD's tooth powder, as "Probably the most effective mouth antiseptic obtainable . . ." should be subject to CD's sudden and unexplained decision "to stop offering the sodium perborate type of tooth powder as it is probable that this material is ineffective when used in such a mixture," or why, in making this explanation in its September, 1935, "Technical Section" (which is Cooperative Distributors' name for what Sears, Roebuck or Marshall Field would call a catalogue) it was not stated that in fact the defect of the sodium perborate type of tooth powders was a more fundamental and important one, clearly brought out in CR's September, 1935, *Annual Handbook*, viz., that no "paste, powder, or mouthwash should be used that contains [sodium perborate or sodium borate] unless for an infection, at the direction of a dentist. The unrestricted use of these substances may lead to a condition known as borism and is particularly hazardous in children because of the possibilities of reflex (involuntary) swallowing." Either Cooperative Distributors is exceedingly careless in its omission of essential facts or it prefers to soft-pedal its abandonment of belief in the qualities in sodium perborate which once made it from CD's point of view such a desirable and important ingredient of tooth powder: "Superior [as an antiseptic] to any other that might be

included." It seems to CR most important that an organization purporting to serve the consumer should, when explaining its new attitude toward perborate, scrupulously avoid describing an ingredient of a tooth powder as merely ineffective when it is in fact *toxic* and potentially dangerous to use over a long period, especially for children.

CR has had reason to find increasing amount of fault with both the economic and technical aspects of the merchandise offered by CD. As time has gone on, the true situation relative to CD has gradually unfolded itself, in unmistakable terms. In the light of recent developments, CD is continuing to go in the direction in which CR perceived it to be going from the very start. CD's progress in that businesslike direction has of late been more rapid than ever.

There is grave uncertainty as to the economic justification or the safety of some of the products CD approves. The evident tendency toward resolving these doubts in favor of the seller instead of the consumer, the evident suppression and/or camouflaging of essential technical facts, and use of imaginative and unrealistic terms in describing goods, the strange failure of a substantial proportion of CD products so far tested by CR to measure up even to CD's description of them, the very low quality of some of its goods most easily subject to test and evaluation, and the generally high level of CD's prices, all give rise to a suspicion CR has had from the beginning of Cooperative Distributors' work: that the business of selling goods on a "co-operative" basis or any other has been, so far as demonstrated to date, incompatible with unquestioned forthrightness, candor, and critical examination of products and services for consumers. CR's technicians over a period of two years have noted all too many discrepancies between the lofty expressed purposes of CD and the practical application of the principles to which the organization nominally subscribes; for expressing its doubts to CD and to CR subscribers who have made inquiry, CR has been accused of "persistent sabotage of CD" which the latter resented, with a singular lack of particulars, as "unfair and irresponsible."

CD's failure to accept criticism of its products in good faith and in good spirit on the basis of sound technical appraisal is patent evidence of a lack of professional and technical responsibility. Criticism and changes to meet criticism are of the essence of scientific and technical advancement. So far as CR has been able to discover, CD's resentment at dispassionate examination of its offerings is a primary reason for the bitter attacks that have been made upon CR by CD's leaders and officials. The poor grace with which this challenge to CD's

\* Cooperative Distributors, Inc., 30 Irving Place, New York City, is a distributing agency for consumers' goods organized on Rochdale cooperative principles. It claims "to supply the consumer with authentic information as to the ingredients [and impliedly other essential technical information] of all commodities it recommends." Those paying the membership fee of \$5 are entitled to make purchases at lower prices than are available to non-members. Such profits as accrue from operations are distributed to members of the cooperative in proportion to the amounts of their purchases.



technical competence has been met is illustrative of how the psychology of the seller, which is almost an instinct with the American people, long subject to the pervasively commercial outlook of the schools, literature, and the press, has inevitably and almost unconsciously come to play a part in the methods even of a supposedly idealistic and non-profit organization organized as a "cooperative on Rochdale principles."

It may be a bit disconcerting to CD to be called upon to give a straightforward explanation of why products identical with some of those CD sells can be obtained elsewhere at lower prices—sometimes at considerably lower prices—not in special sales or as "leaders," but as regularly carried items. CR suspects, after careful investigation, that the latest case of this kind to come to light could be more readily explained along capitalistic than cooperative lines. Strangely enough, in the technical aspects of this case, that of a radio, CD's No. 200, CD is joined with Montgomery Ward & Co. in a situation involving the same product. The product is one that furnishes a nice example of the wide gulf that seems always to exist between high-sounding representations of "quality control" by "rigid laboratory standards" and the actual down-to-earth facts, whether those facts grow out of the activities of a business or a cooperative. Because of this aspect of the question, the important indication this instance affords of the vital relationship of technical facts to economic ones in their bearing upon the position of the consumer in the market, and in view of the fact that the sale of the product is likely to be rather large on account of its being distributed by the great mail order firm, Montgomery Ward, and by CD and other suppliers, we devote more space to discussion of the product than would ordinarily be warranted for any single example.

In the November, 1935, *Consumers Defender*, CD offered three radio models at prices representing about 25 percent markup (to non-members; 16 percent to members) over the prices at which anyone could obtain them direct from CD's supplier, Wholesale Radio Service Co., 100 Sixth Avenue, New York City, a cut-rate mail order firm (apparently not a wholesale concern at all) dealing at retail and issuing a retail mail order catalogue. Thus, for example, on CD's Model No. 200, CD members (who, as a condition of membership, pay a \$5 membership fee) paid \$6.05 more than if they had merely addressed their order to Wholesale Radio Service Co., for *Lafayette* Radio Model B-22, a product of identical character, type, and manufacturer's number—the same set, indeed, with a different nameplate.

In the December *Consumers Defender* of CD we are astonished to find that CD has "learned that a radio concern which sells at *wholesale* is offering these radios to the consumer at prices very little above the *wholesale values*. Although these prices do not provide an adequate margin for CD, we have decided, *as a matter of policy*, to meet them." [Italics ours—CR] The radio concern referred to is, of course, none other than Wholesale Radio Service Co., which not only sells at retail and to Cooperative Distributors, Inc., but issues an expensive and voluminous catalogue of radio sets,

materials, parts and tools widely known among purchasers of this class of equipment. Evidently CD has obtained these radios from this company all along, and while it is true, it seems most misleading to say that CD has "learned that a radio concern *which sells at wholesale* is offering these radios to the consumer at prices very little above the *wholesale values*." [Italics ours—CR] CD had good reason to "learn" of these lower prices, announced at least a month before CD announced its high prices in the November *Consumers Defender* and to know that Wholesale Radio Service Co. sold at retail. One is entitled to use his imagination as to the reason for the belated price reduction by the cooperative, C.D., Inc. For those who wish to satisfy themselves from evidence easily available to all, we suggest a comparison of the pictures in CD's *Consumers Defender* of December, 1935, p.18; Wholesale Radio Service Co.'s Catalogue No. 59, p.13; and Montgomery Ward's Catalogue No. 123, p.417.

Those who abstained from membership in CD were charged for their neglect in this instance the sum of \$9.25 more than the \$36.95 Wholesale Radio Service Co. regularly sells this radio for. Even after CD's price reduction was made "as a matter of policy," CD's prices to non-members remained higher than those available to anyone wishing to obtain the radio direct from the Wholesale Radio Service Co. When a certain consumer went, just as any other consumer might go, to CD's salesroom (after the price reduction just mentioned went into effect) to purchase a Model No. 200 radio, he was given an order to take to Wholesale Radio Service Co. to get the radio. There, as a non-member of CD, he might have bought the identical radio for \$1.80 less, had he not already paid out his money to CD. (He would have further saved the time of waiting while the dial escutcheon was changed from one bearing the brand *Lafayette* to a blank one.) This kind of setup would seem to partake generously of the same parasitic evils, indirections, disingenuousness, slick trading, and wastes as the capitalistic distribution system against which CD rails so loud and long. As usual, the half-trained theorists are encountering difficulty in practicing what they preach or else they merely find it more convenient to follow along with capitalism while talking co-operation and a new society to be based in some wholly undefined way on "collective bargaining for workers and consumers." Somewhat explanatory of CD's generally high level of prices is the fact that CD is in this case buying from a middleman and not direct from the manufacturer. Whatever the reasons for this indirection may be, they do not appear to exemplify the principles of "cooperation." The result is, of course, as CD expresses it, that "these prices do not provide an adequate margin for CD." Why should consumers be obliged to visit two places of business and pay two handling charges or "distributing costs," as these wastes are called by capitalist enterprises, when at least one handling is entirely superfluous and introduces a cost without any corresponding advantage—to the "collective bargaining consumer" who bargains in this case with a retail radio dealer via a "cooperative" middleman?



Consumers will have to be trusting indeed not to have some suspicions of an organization which "saves money" for consumers by any such round-about process as this. "*Why Not Advertised Goods?*" asks CD. If not advertised goods, why not lower prices?, the discerning consumer will ask in turn. Evidently it is not only "advertising [that] tries to 'lift' such goods above their true competitive level, and robs the consumer on both quality and price." The practices of cooperatives and advertisers, however differently they may be phrased, seem all too often to come out the same in the end. Some would go so far as to say that the sardonic "Merry Christmas, Suckers!" which greets one from the cover of the December *Consumers Defender* might almost appropriately be CD's own left-handed greeting to those who are invited to purchase some of its offerings.

If, at \$46.20 (the original price to non-members) "the price of this set is extremely low, considering its design, sturdy and accurate construction," as CD says of Model No. 200, one wonders what super-superlatives may be applied to Montgomery Ward's model at \$25.95 (Cat. No. 462 A 177), which has the identical "sturdy and accurate construction" and indeed the identical chassis (made by Wells-Gardner & Co., Chicago) minus only a few gadgets and features of questionable value that have very little effect, as proved by CR's tests, on the degree of fidelity that is available and usable under most conditions, and have no effect whatever on the best available selectivity and sensitivity.

Montgomery Ward even undersold CD (at the original CD prices) by \$5.05 on an almost exact counterpart of CD's Model No. 200, offering at \$37.95\* a radio (Cat. No. 462 A 185) with the identical chassis (Wells-Gardner's series 7G) except for style of tuning dial and minor differences in the loud-speaker. What is more important than these discrepancies in price, however, as CD itself reminds us in the repeated statement, "price is meaningless without standards," is the fact that both samples of this chassis, as represented by CD's Model No. 200, and Montgomery Ward's Cat. No. 462 A 185, exhibited in CR's tests several very serious shortcomings. These deficiencies were not of a nature that could be overlooked because of the fact that this radio was priced somewhat below the usual range. The defects are inexcusable in that they result from improper design that amounts practically to a mistake, since a few changes that would have been easy to make at the time the design was being worked out and developed, and that would have added nothing to the cost (or might even have reduced it) are all that would have been required to turn this into a first-class radio of its size and type. One wonders where Montgomery Ward's testing laboratory was when this radio came along with its defects that are apparent even to an untrained observer or what kind of professional skill in the radio field Montgomery Ward employ; or where were CD's "carefully prepared specifications and competent technical advice," CD's "consumer quality standards" and "CD's laboratory . . . constantly testing a variety of goods before they are purchased for consumers."

\*Now (end of Dec. 1935) on sale at \$34.95.

Both radios (Montgomery Ward's and Cooperative Distributors') were evidently out of adjustment when received by CR, evidencing either a failure of the components to retain their initial factory adjustment, or a lack of care in making the adjustment in the first place. The result of this improper condition was the production of a strong background (hissing) noise which made reception of weak stations impossible, and caused an extremely annoying interference with proper audition on all but the strongest stations, being noticeable even on those. The high fidelity position of the selectivity control could not be used in either set, because of the accompanying great increase in noise. Both sets had defects in materials or construction that resulted, in the CD set, in another noise of erratic character; and in the Wells-Gardner set sold through Montgomery Ward, in a defect in the wave band switch which made it incapable of being turned to one of the short-wave ranges (CR gladly admits that this for most persons would not be any great loss). Volume controls on both sets produced noise when they were turned. When a radio is bought by mail, these defects, when they can be corrected, mean an additional cost for the services of a repair man, or at least trouble and expense, or both, in returning the defective set for exchange or repair (and we speak from experience when we say that examining and fussing with a defective set, packing it up for return shipment to the maker or dealer in a distant city, and writing the necessary long and detailed letter of explanation, is a vexing and wasteful performance).

Of no less importance than noise in creating annoyance is the very ineffective automatic volume control of this chassis, which not only permits severe fading, but also allows the stronger stations to blare out deafeningly while tuning. (This, incidentally, is a simple test of the effectiveness of an automatic volume control that anyone can make for himself. Unless the nearby powerful stations remain at a volume only perceptibly greater than that of the more distant, weaker stations,—without any need for readjusting the manual volume control as the tuning dial is rotated—the automatic volume control will not effectively compensate for fading.) Fading was so severe in CD's Model No. 200 that anyone not otherwise informed would have been justified to assume that the set had no automatic volume control, although CD claims that "automatic volume control greatly reduces fading on most stations."

This Wells-Gardner-Wholesale Radio Service Co.-Montgomery Ward-Cooperative Distributors chassis used an excessive amount of power (70 watts) considering its performance. Several sets using only from 50 to 60 watts gave as good or better performance in CR's tests. In this connection it may be noted that although seven tubes are used, this set is the equivalent only of the usual six-tube set, since an extra tube is used that adds nothing to the actual performance on the long waves, and would not have been called for except perhaps for a slight advantage it affords on the short waves. Even so, the sensitivity is far in excess of values that could ever ordinarily be utilized. (Consumers

have been misled into a belief that enormous sensitivity in a radio set is important and worth paying for, when as a matter of fact many commercial sets far exceed in sensitivity what can be practically utilized in view of the high level of power-line noises, static, inter-station interference, etc.) Owing to a crudely contrived belt drive on the tuning dial, the action of the set in question as to tuning was not positive, and tuning was troublesome.

The Montgomery Ward set, Cat. No. 462 A 185, was originally adjudged from the test data as warranting a C. Not Recommended rating, but in view of the fact that the defects noted appeared to be such that they might reasonably have been due to a sporadic failure of factory inspection, and further considering the generally unsatisfactory quality of all the table models examined by CR, especially the prevalent condition of serious shock hazard, the doubt was resolved in favor of the Montgomery Ward set and it was put into the B. Intermediate group. The CD set, however, which had an electrically identical chassis, was found to be in the same condition as to unsatisfactory adjustment, whence it appears that a C rating for the Montgomery Ward set might have been in order. Certainly the rating of CD's No. 200 or Montgomery Ward's No. 462 A 185 or GE's No. A-63 in the B. Intermediate group must be considered in each case as by a narrow margin, and as reflecting rather the low quality of other sets, within the price limits examined by CR, than any distinguishing merit in the B. Intermediate-rated sets referred to.

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A more convincing demonstration of the results of a lack of adequate or competent technical resources for judging a complex product could not be asked for; more precisely, perhaps, the instance exemplifies the lack of compelling *interest* in such resources, all too typical of agencies concerned primarily with sale of products. Typical of the "technical" descriptions of which CR disapproves is CD's gushing misrepresentation of this radio. Technical information, incomplete and distorted either through ignorance of the technical subject matter or unwillingness to be deprived of the adjectives so helpful in all advertising, "cooperative" or otherwise, is an even more potent weapon *against* consumers than no technical information at all. CD's difficulty, it may be supposed, is a combination of both. "Splendid," "amazing," or "astonish" are hardly words that find frequent or even occasional employment in accurate and complete technical specifications, yet words of this character, more suited to a newspaper literary critic than to an engineer, are freely sprinkled through the pages of *Consumers Defender*. To read CD's description, one would think the radio were perfect. In the world of technical realities, few, if any, radios have ever been built which combined in one design the utmost in every desirable feature or characteristic, and needless to say those few are not *commercial* radios. Wells-Gardner's series 7G chassis falls notably short on a more than ordinarily large number of points of achieving any such constructional or performance ideal.

Readers who wish to note that even under the

"cooperative plan" the instinct of salesmanship comes to the fore should compare what CD and CR (CR having no stake in selling any sort of consumers' goods by anyone anywhere) have to say about the importance of short-wave reception. CR will leave it to radio listeners to decide, after the novelty has worn off, whether short-wave reception is "one of the really valuable advances . . ." in radio, as CD has it. But CD's reason for believing in short-wave radio is spread upon the record in the two sentences, "CD feels that the value of direct communications with other peoples cannot be overestimated in developing a real brotherhood of nations. Then war propaganda will be far less effective." That is in brief, if you don't find short-wave reception very satisfactory, it would be nice if we had it for the sake of international brotherhood. CD's statement that "in most any location you will quite consistently hear Big Ben in London, British Empire news, Hitler propaganda and entertainment, Spanish serenades, music from Moscow, and many others, received as well by day as by night," is not true with reference to the Wells-Gardner-Wholesale Radio Service-Cooperative Distributors set or any other commercially available.

CD rarely points out the shortcomings of products it sells; often it seems to point out a minor shortcoming, as advertising men sometimes do, more to the end of throwing into relief and to give emphasis to the laudatory adjectives and adverbs it finds useful, as other mail order houses do, in getting its goods off the shelves. Each succeeding issue of *Consumers Defender* resembles more and more a Montgomery Ward or Sears, Roebuck catalogue in its glowing, enthusiastic, unscientific, come-on-and-buy-our-wares descriptions of products, and in CD's ad-composing department's evident want of disinterestedness and realism. Indeed, upon all evidence so far adduced, it seems to us at CR that as a means of assuring the consumer of the quality of his purchases, CD's so-called Technical Section (catalogue to you) and the high-flown claims which it resorts to, have little, if any, more value than the high-power phraseology of the traditional mail order catalogue. Indeed, those who are used to Montgomery Ward and Sears, Roebuck, and hence do not take the flowery and ingratiating phrases of any mail order catalogue at face value, will perhaps be safer with one of these frankly business-like catalogues than Cooperative Distributors', in that they will be able to some degree at least to apply the necessary discount to misleading claims. They will fare better if they do not fall into the verbal trap of "economic democracy," the "cooperative approach," and "collective bargaining for consumers," *à la* CD. No one will deny that it is unfortunate, but it does seem true that in the present state of the world, selling goods and telling the whole and unvarnished truth about them, without cant, evasion, or hypocrisy, do not run together.

## Correction

IN THE DECEMBER, 1935, Bulletin on page 2, a typographical error occurred in the explanation of the symbols 1, 2, 3. These refer to relative prices, 1 being *low*, 3, *high*.

## You Pay Your Money And the Dealer Takes His Choice

THE PRIVILEGE OF BUYING GOODS on specifications continues to remain the prerogative of the Government and large business corporations. In the eyes of business men, the consumer is entirely unreasonable in expecting that he will be allowed to make his purchases in this fashion. One of our subscribers who wished to buy a secondhand car spent considerable time in drawing up specifications for the car he wished to purchase. He sent a copy of the specifications to ten or eleven dealers in his vicinity in New Jersey but was unsuccessful in buying a car by this method or even in getting one dealer to take an interest in his very reasonable requirements, though a sale was practically assured. Apparently business and profits are so good in secondhand automobiles that no one would bother spending a short time at filling out the answers for this questionnaire in order to make a sale. One dealer, indeed, was so outraged at the idea that he returned the specifications with several attempts at humor. The specifications follow. The dealer's penciled remarks appear in italics:

WANTED: One Four-Cylinder Plymouth sedan for delivery June 1 to the following:

*("A lot for nothing")*

Name  
Address

### SPECIFICATIONS

MAXIMUM PRICE: \$180

TIRES: Four new tires; one spare in good condition.

BRAKES: The removal of one wheel picked at random must reveal a brake band in good condition and capable of giving service for at least ten thousand miles.

PAINT: The paint must be in good condition.

CLUTCH: The clutch must not slip or grab.

WHEELS: There must be no shimmy or wobbling of the wheels.

BATTERY: The battery must be fully charged and have no weak or dead cells.

WINDSHIELD WIPER: The windshield wiper must operate smoothly and continuously.

### MOTOR:

Bearings—There must be no bearing knock when pulling at low speeds or when running wide open with a hot motor.

Valves—The valves must have been ground and the carbon removed within the last one thousand miles.

GASOLINE CONSUMPTION: A road test made as described below must show that the gasoline consumption is not greater than the following:

Speed in Miles per Hour	Mileage in Miles per Gallon
15	19
20	19.5
30	19
40	16

The test: The vacuum tank will be disconnected from the supply line from the main tank. The motor will be run until all the gasoline in the vacuum tank and carburetor has been burned. One pint of gasoline, not containing tetraethyl lead, shall be poured in the vacuum tank. The motor shall be started and the car brought up to the test speed as rapidly as possible. The run will continue until the motor stops, evidencing the exhaustion of the gasoline. The mileage covered in the run shall be determined by observing the speedometer reading at both start and finish of the run. The process above described shall be repeated after turning the car around, the course being covered in the opposite direction at the same speed to eliminate the effect of wind. Therefore in all eight runs

will be made. The average mileage at each speed shall be the figure considered.

OIL CONSUMPTION: A trial run of one hundred miles requiring not more than two hours and forty minutes shall require no more than one quart of oil. The gasoline consumption on the same run shall not exceed six and one-half gallons.

POWER: The car shall climb the hill known as "Mt. Freedom Hill" located on the road between Morristown and Succasunna, starting at the bottom in high gear at forty miles per hour, slowing down to not less than thirty miles per hour at any time, remaining in high gear throughout the climb.

BIDS: Bids will be received until twelve noon May fifteenth nineteen thirty-three. The three lowest bidders may then submit their cars for inspection and testing. The car making the best showing in the gasoline and oil consumption tests will be accepted.

The right to reject any and all bids is reserved.

*("Are you sure you don't want anything else for \$180?")*

*("Why don't you buy the beer rights of New Jersey!")*

## No Room for Strike News

LACK OF SPACE PREVENTED our giving any account of developments of the recent "strike" at CR. We wish, however, to offer our heartiest thanks and deep-felt appreciation to those supporters of the consumer movement who have contributed so generously to the CR Defense Fund. As soon as time permits we hope to prepare a summary of recent events which, if there is sufficient demand to warrant issuing it as a mimeographed pamphlet, will be sent at a 10c charge to all who send in their names, addresses, and a 3-cent stamp to cover mailing costs. It is hoped that this pamphlet may be ready early in March.

## Contributors

FORMAN SMITH is the pseudonym of a physicist who has given CR valuable aid as a consultant in the field of illumination.

CHARLES S. WYAND, Chairman of the Center County (Penna.) Consumers' Council, is the author of several articles criticizing the "New Deal's" gestures in behalf of consumers. He is at present finishing a work on the economics of consumption, for college use, which will be published early in the spring.

WILLIAM S. WEISS has contributed several articles to CR Bulletins on various legal questions of interest to consumers. He has been an attorney in active practice in New York City for more than twenty-five years.

## Signs and Portents

NOT THAT WE CARE PARTICULARLY, but would the makers of Elgin watches please reconcile the recently well-publicized remarks of "comely Mrs. Constance Zabriskie Richards of Nantucket and New York"—"in my husband's family the Elgin tradition goes back even farther . . . to an ancestor who was one of Nantucket's first magistrates"—with the facts that the first Elgins were manufactured less than seventy years ago and the town of Nantucket was settled in 1661 and incorporated in 1671? (*Advertising and Selling*, August 1, 1935.)

Only about 200 years off, if *Advertising and Selling* is good on its history, insular and horological! It appears again that ad-men are no sticklers for details.

A COOKING PROCESS WHEREBY BEANS, such as navy beans, may be made to resemble with great accuracy, in flavor and texture, beans cooked in baking ovens, without the long, tedious and expensive baking processes now required, has been patented by John T. Knowles of Chicago, Ill., who has assigned U.S. Patent 2,019,141, covering his invention, to Libby, McNeill & Libby of this city.

According to this process, the beans are first soaked, then cooked in oil or fat, the cooking being completed in the presence of moisture. . . .

"During this cooking operation, the moisture content of the beans is reduced to between 15 and 22 per cent. The beans thus cooked are shriveled as compared with their swelled size and, in addition, are relatively hard and tough. In color they are slightly brown, and, furthermore, they will contain some absorbed oil or fat.

"The essential feature of this oil cooking step is to impart to the beans a shriveled, hard, and tough consistency, the capability of absorbing a substantial quantity of moisture and to again soften and swell to the original swelled size. The beans, after having been subjected to this cooking operation, are introduced into cans at a temperature somewhere around 200°F.

"The charge of beans in each can should be adjusted to approximately one-quarter of the volume of the can. Thereafter, a suitable sauce is added and, if desired, a piece of pork. After sealing the cans, a further cooking operation is conducted by subjecting the cans and the contained beans to steam for approximately 100 minutes at 250°F. During this last treatment, the product is thoroughly sterilized and completely cooked to produce the desired flavor and texture. Furthermore, the beans absorb the sauce and again swell to completely fill the cans. Also, certain additional chemical changes occur which help to produce a typical Boston baked bean flavor." (*Food Field Reporter*, December 2, 1935.)

A recurrent wail from advertising and publicity men and editors of women's magazines is that CR picks isolated, unusual, or non-typical horrible examples from which to draw conclusions. As we have frequently pointed out, our best source of information has always been the various trades' own journals. A careful and continual reading of food trade journals especially would convince the average consumer that we have ever understated the degradation of the nation's food supply. Never in our wildest dreams could we have imagined that anyone would invent a process for imitating so cheap a product as baked beans, a product adaptable as it is, and without culinary degradation, to economical and efficient factory production. If anyone did market genuine baked beans now, few readers of advertising would believe the claims made for them, so deep is the public disbelief in advertising's truth and honesty.

6.00

Not Confidential—Consumers' Research, Inc.

Dear Mr. Editor:

Your editorial in the July 22 issue of DRUG TRADE NEWS, entitled "Three on a Match," clearly shows the need for manufacturers of proprietary products and cosmetics to do something about fighting untrue statements made in books and periodicals which are apt to cause public distrust of this type of merchandise.

Because of my close association with the proprietary medicine business, I know that many of the manufacturers who have had their products attacked in recent books have done nothing about it because they are afraid that the publicity which would result from a court case would do more harm than good, even though they won the case. However, I believe that a large group of manufacturers, acting together, could do a great deal for themselves and for the industry by bringing suit all at the same time.

It would certainly be a terrifically dramatic thing if 100 manufacturers, whose products are attacked in recent books, would bring suit all at one time. Obviously, the publishers could not fight that many suits at the same time, and they would be forced in many cases to admit errors in their statements. Furthermore, the situation would undoubtedly be given wide publicity of real help to the proprietary field. (Signed) A Reader. ("Mass Action Needed," *Drug Trade News*, August 5, 1935.)

One easily determines from this disturbed letter to the editor of a trade journal that CR's books (and bulletins and handbooks, no doubt) are having considerable effect in arousing consumers to the need for drastic action in curbing the sale of worthless, fraudulent, or dangerous drugs and cosmetics.

Some subscribers who doubt the reality of the hazards run by CR and the members of its board may perhaps be surprised at the extent to which a business man (who doesn't sign his name) regards CR as the proper victim of a general ganging up by business concerns whose products won't stand the light of analysis and criticism. Subscribers who understand the processes of the law will also realize that for CR to be right is no guaranty of its safety from successful attack in such a case. The defenses afforded by the law unfortunately are freely available only to those who have large financial resources. Success at suit does not equally attend those in prosperous and those in modest circumstances, so that on the whole the chances for "the proprietary field" to come to a happy conclusion would be better than for those who would be their victims, were it not for the availability of the services of CR.

FINDING THAT WE were only averaging three milk shakes from a quart bottle, I asked the milkman to leave a few dozen ½ pint empty milk bottles. We filled these bottles and capped them with Davol Milk Bottle Rubber Caps. This enabled us to serve each customer from an individual bottle and assured four full servings from each quart.

Milk drink sales doubled after we instituted this new plan, and the individual bottle service pleases customers.

In addition, customers seeing the bottle caps become interested and purchase some. In the past two weeks we sold 3 dozen caps. ("Individual Milk Service," By Leonard Snyderman in *Drug Topics*, September 16, 1935.)

Here is one of the many shrewd practices whereby consumers get less and are persuaded to like it better than what they had before. The column in which this item appeared is headed, "Prize Money for Clerks. This week's \$5 winner."



